

# ***SFA Modernization Partner***

**U.S. Department of Education**

**Student Financial Assistance**



## **Consistent Data Project Legacy and Modernized System Data Dictionary System Functions, Entities and Attributes**

**Task Order 63  
Deliverable 63.1.3**

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## **Introduction**

### ***Project Background***

SFA is unable to obtain consistent information from today's legacy systems. Without consistent data, SFA's ability to deliver consistent answers for its customers and partners, and manage its business performance, is hindered.

SFA now has a unique opportunity to design for, and build in, consistent data; particularly since most Modernization systems have not yet been built.

The objective of the Consistent Data Project is to develop a Roadmap for building consistent data in modernized systems. The Roadmap will address these major causes of inconsistent data:

- No clear ownership of data throughout the aid process.
- No controls to establish single points of data entry and update.

The Roadmap will also suggest what modernized system should store major data entities that are commonly used and shared.

### ***About this Deliverable***

This Systems' Assessment document and the associated data dictionaries are the second of 4 Consistent Data Project deliverables. The system assessments and data dictionaries represent the bottom up analysis of the functional and data aspects of the legacy systems that are still active or being considered for reengineering, and modernized systems that have been built. The assessments and data dictionaries focus on the shared/common data that flows in or out of these systems. Understanding what systems use this data and what they do with the data is critical to developing the Consistent Data Roadmap.

The legacy systems are CPS, NSLDS, PEPS, DMCS, DLSS, and DLCS. The modernized systems are eCB, COD, FMS, and eServicing.

For each system identified above, a section follows that summarizes key business functions and their shared/common data entities and attributes. For modernized systems, entities and attributes of their interfaces are summarized, rather than their internal databases. The functions and data entities and attributes were reviewed with SFA's subject matter experts.

In addition to the data entities and functional analysis, data dictionaries (table/file/field dictionaries) are available for the major data entities and attributes related to the data entities for the systems listed above. The CIO's previous system dictionaries were used as a baseline (from CEDM - Common Enterprise Data Model), where available, for

creating the initial “review-able” draft of data dictionaries. Data dictionaries were also validated with the SFA subject matter experts at a cursory level.

### ***Document Organization/How to Read These Assessments***

The assessments have the following organization:

- General Functional Description of the system
- Interface Summary Diagram
- System Data Assessment by Major Function (Includes summary tables of entities)
- Cross Reference of System Assessment Documents Entities to Physical System Tables or Interface Files.

The following is an effective approach to reading the assessments:

- 1) Read the General Functional Description
- 2) Review the Interface Summary Diagram. The interfaces are grouped and colored by major system function. The interfaces should be reviewed in a clockwise direction, starting with the first function. In general the first function represents where data comes into the system and the system begins processing. Note that some interfaces have 2 colors which means they are involved in 2 functions.
- 3) Read the System Data Assessment by Major Function text, which describes what functionality happens and what data is involved. The data is summarized in tables to define the scope of data that is used in the function. The text describes the interfaces in the clockwise direction as they are laid out in the diagram. It is useful to refer back to the diagram frequently to maintain a sense of where you’re at in the overall functionality.
- 4) If you need to drill down into the physical tables of a system, the Cross Reference at the end of each system’s section will give you a start at this process. The Cross Reference maps the logical entities described in this assessment to physical tables or interface files where this data is physically stored in the system. Note that this mapping should not be treated as 100% reliable since experts were not always available within the timeframe required to validate our mapping of physical tables and the tables may have changed since these analyses were done.

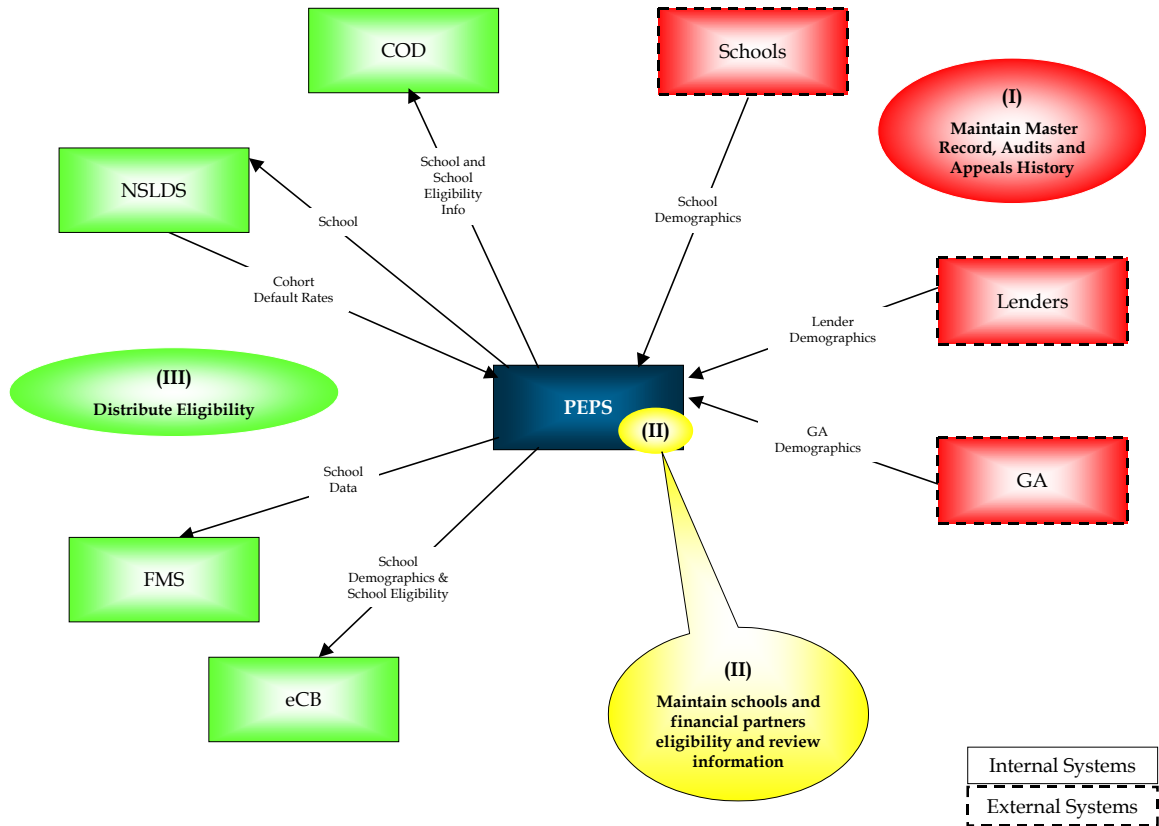
## ***The Postsecondary Education Participants System (PEPS)***

Postsecondary Education Participants System (PEPS) is SFA's system of records for schools. PEPS generates OPE IDs (school id for SFA systems) and other institutional information. It also maintains eligibility, certification, demographics, financials, program reviews, audit and default rate data about schools and financial partners participating in the Title IV programs.

PEPS performs the following key functions:

- Maintain school and financial partners' master record, audits and appeals history
- Maintain schools and financial partners eligibility and review information
- Distribute school eligibility

The following diagram is an overview of PEPS and its interfaces, organized by the above key functions.



## PEPS Data Assessment

This section summarizes the key common entities flowing in and out of PEPS. It breaks down the data flows into separate key business entities and a sample of attributes to help define the entity. It also documents the key system specific entities that are internal to PEPS functionality.

This section is organized by PEPS' functions, followed by its data entities and attributes.

### *Function (I): Maintain School and Financial Partners' Master Record, Audits and Appeals History*

#### *Schools*

PEPS is directly updated by the Case Management Oversight (CMO). Applications from schools are submitted via the electronic submission process. If the application is a new one, PEPS generates a new OPE ID. The application contains OPE ID number (for existing schools only), name, address, TIN, institutional structure, and other demographics.

School
School OPE ID
Location Number
School Name
Location Name
Location Address
Eligibility Indicator
Certification Type Code
Loan Deferment Indicator
Approval Indicator
Program Length Code
School Type Code
Contact Type Code
Contact Demographics
FPELL Information
FFEL Information
FDSLP Information
Perkins Information
FSEOG Information
FWS Information
Accreditation Type Code
Default Cohort Information
Default Loans Information

#### *Guaranty Agencies*



The Guaranty Agencies (GA) update their demographics and reviews data for business conducted with schools and lenders into PEPS directly via a Citrix Interface.

Guarantor
Guarantor Code
Guarantor Registration Code
Guarantor Type Code
Guarantor Description
Guarantor Name
Guarantor Address
Letter Sys ID
Rate Sys ID
OPE ID
Cohort Year
Default Amount
Rate Percentage
Repay Amount
Repay CNT

### *Lenders*

The Financial Partner Channel manually updates lender demographics into PEPS.

Lender
Lender Association Code
Lender Name
Lender Phone
Lender Address
Dunn Number
R LID
Lender Portfolio F Y Loan Origination Amount
Origination Amount Q1 – Q4

### *Audits*

CMO administers a process for receiving, logging, screening, issuing and resolving audit reports. In order for schools, lenders and GAs to become eligible for participation, they are required to annually submit an audit of their administration and financial statements performed by independent auditors. CMO uses PEPS to perform these responsibilities.

PEPS maintains the codes for deficient and non-deficient audits that support CMO's resolutions. When a compliance audit report identifies findings that need to be resolved, CMO follows up with the institutions to work out a course of corrective action.

### *Appeals*

PEPS' maintains data on several types of appeals. Informal, Audit, Program Reviews, Default Rate Data for schools and Financial Partners. The various stages of the appeal process are also maintained.

The outcome of these appeals can result in loss of program eligibility and/or overall Title IV eligibility.

<b>Audits - School</b>
Audit Control Number (ACN}
School Group Number
Award Year
Pre ACN Received Date
Financial Statement Audit Due Date
Audit Level Code
Audit Report
CPA Name
CPA Address

<b>Audits - Financial Partner</b>
Audit Control Number (ACN}
Audit Entity By
Audit Entity For
Entity ID
Entity For Name
Period Start Date
Period End Date
Finding Code
Audit Method
Audit Received Date
Issue Date
Due Date
Closed Date
LID
Servicer ID
OPE ID
Deficiency Code
Total Assessed
Total Paid
CPA Office

Finally, PEPS provides flexible reporting concerning post secondary institutions, accrediting bodies, state licensing agencies, lenders and guarantors for a large number of users with diverse business needs. The reports are run through SQL queries via the Internet.

## ***Function (II): Maintain Schools and Financial Partners Eligibility and Review Information***

### ***Schools***

A school applying for first time eligibility approval provides CMO with certain basic information. The provided information is transferred into PEPS. PEPS generates a unique OPEID that is provided to the school. This OPEID will give the school access to the electronic application to complete the rest of the Application via the Internet.

Next, the school submits the completed application. This data flows into the CMO reviewer area. This area is where CMO staff determines eligibility, approves or denies participation. The result of this review flows to a pending area. If approved, the school data remains in this pending area until the Department receives and counter-signs the Program Participation Agreement (PPA). Once this document has been signed, the data is migrated into PEPS production. If no PPA is required, (schools designated as eligible loan deferment only) the school's data is flagged for release into PEPS Production.

A school that has been approved may continue to update its data within 10 days of the change. CMO reviews the changes and when approved, releases the data into PEPS production. A full application is submitted every six years for recertification review. This application will follow the data flow from reviewer, pending area, and upon PPA reception, released into PEPS (when applicable).

### ***Lender Eligibility***

Guaranty Agencies impose the standards and procedures for which an eligible Lender may participate in the program. Lender eligibility can be limited further by Federal regulations and State regulations and guidelines.

Once the lender is determined eligible, the Financial Partner Channel assigns a lender ID and updates PEPS with the lender eligibility information.

### ***Guaranty Agency Eligibility***

The Secretary enters into agreements with a Guaranty Agency whose loan guarantee program meets certain requirements. The agreements enable the guaranty agency to participate in the Federal Family Education Loan Programs (FFEL) and to receive the various payments and benefits related to that participation. The four agreements are Basic Program, Federal advances for claim payments, Reinsurance, and Loan Rehabilitation.

Once the guarantor has been determined eligible by the Department of Education, it must enter into agreements with the Financial Partner Channel, which in turn updates guarantors' eligibility status into PEPS.

Guarantors' reviews of lenders and schools eligibilities are also stored directly into PEPS.

### *Reviews*

PEPS also stores data on audit, program reviews and annual financial statements. The analysis of school's performance is maintained by CMO and Financial Partners. These reviews are carried out to insure that the institutions and partners are administratively and financially compliant with the Title IV requirements for participation.

<b>School</b>
School OPE ID
Location Number
School Name
Location Name
Location Address
Eligibility Indicator
Certification Type Code
Loan Deferment Indicator
Approval Indicator
Program Length Code
School Type Code
Contact Type Code
Contact Demographics
FPELL Information
FFEL Information
FDSLIP Information
Perkins Information
FSEOG Information
FWS Information
Accreditation Type Code
Default Cohort Information
Default Loans Information

<b>Review – School</b>
Program Review Control Number (PRCN)
Review Protocol Code
Review Site Code
Review Start Date
Review End Date
Review Close Date
Review Type Code
Review Level Code
Review Reason Code
FPRD Date
EDL Date
PR Report Date
PR Repayment Method Code
Review Deficiency Code
Liability Amount
Revised Liability Amount

Review Repayment Amount
Revised Repayment Amount
Review Lead Reviewer Indicator
Responsible Reviewer Indicator

<b>Review - Financial Partner</b>
Program Review Control Number (PRCN)
Entity By
Entity For
Entity ID
Entity For Name
LID
OPE ID
Servicer ID
Start Date
Period Start Date
Period End Date
Review Level Code
Review Type Code
Report Issue Date
Report Closure Date
Scope Code
Deficiency Code
Total Assessed
Total Paid
Portfolio Origination Amount (Qtr 1 – Qtr 4)
Portfolio Origination Amount Year-to-Date
Portfolio Outstanding Amount (Qtr 1 – Qtr 4)
Portfolio Outstanding Amount Year-to-Date

### ***Function (III): Distribute School Eligibility***

PEPS provides the electronic Campus-Based system (eCB) with current address, eligibility and certification data for all participating schools. Periodically, FMS picks up a copy of the school demographics file to update its records. PEPS also sends a school eligibility file to COD for school verification. PEPS also sends a school demographics file to NSLDS. Twice annually, PEPS receives from NSLDS a cohort default rates file and upon receipt of it, PEPS generate notification letters and the press package reports.

<b>School (as requested by eCB)</b>
School OPE ID
School Type Code
School Name
School Address
Country Name Code
Owner
Owner Type
Approval ID number
Education Site IND
Ability to Benefit IND
Degrees Offered IND
PELL Number
TRADE Name
FAADS Code
Application Code
Application Date
Assigned Initial Name
Current Award Year Begin and End Date
Accreditation Type Code
Accreditation Date

<b>School (as requested by COD)</b>
School ID
School Name
School Address
School Web Page
School Eligibility Information
School Certification Type
School Program Information
School Type
School Calendar
Ethnic Code
PELL Program Information
FFEL Program Information

FDSL Program Information
Perkins Program Information
FSEOG Program Information
FWS (Works Study) Program Information
Other System Data

<b>School (as requested by NSLDS)</b>
School OPE ID
School Type Code
School Name
School Address
Loan ID
Loan Type
Grant ID
Current Award Year Begin and End Date

<b>Cohort Default Rates (as sent from NSLDS)</b>
School OPE ID
Cohort Year
Loan Default Amount
Official Cohort Rate
Loan Repayment Amount

### *Cross-reference Table - Data Entities and PEPS Tables*

Data Entities	PEPS Tables
School	LOCATION, APPLICATION, LOCATION_HISTORY, LOCATION_PROGRAM, OWNER, OWNER_HISTORY, OWNER_INVOLVEMENT, SCHOOL_GROUP, SCHOOL_GROUP_MEMBER, SCHOOL_HISTORY, SCHOOL, CLOSED_SCHOOLS
Guarantor	DM_GA_RESPONSE, GUARANTOR, GL_GA_LETTER_DATA
Lender	GL_LENDER, GL_LENDER_DEFAULT_RATE, GL_LENDER_PORTFOLIO
Review - School, Review - Financial Partner	GL_REVIEW, GL_REVIEW_DEFIC, PROGRAM_REVIEW, PURPOSE, REVIEW_CORRESPONDENCE, REVIEWER_INVOLVEMENT, SCHOOL_REVIEWER, GL_REVIEW_SCOPE
Audits and Appeals - School, Audits - Financial Partner	GL_APPEAL, GL_AUDIT, GL_AUDIT_DEFIC, GL_PAID_OBLIGATNS_AUDIT, GL_PAID_OBLIGATNS_REV, RF_DM_APPEAL_STAFF, DM_APPEAL, DM_APPEAL_LETTER_LOG, APPEAL, APPEAL_STAGE, AUDIT_APPEAL, AUDIT_CORRESPONDENCE, AUDIT_FINDING, AUDIT_PARTICIPANT, AUDIT_PROGRAM, AUDIT_REPAYMENT, AUDIT_REPORT, GL_AUDIT_SERVICERS, INFORMAL_APPEAL, RF_AUDIT_OGC_REP
Cohort Default Rates	DM_PERKINS_RATE_LOG, DM_RATE_LOG, GL_GA_DEFAULT_RATE, COHORT, DIRECT_LOAN, RF_DM_COHORT_YR, RF_GL_COHORT_YR



## **PEPS Appendix** **(Additional information on criteria for eligibility determination)**

### ***School Eligibility***

The minimum requirements that a postsecondary educational institution must meet in order to apply for eligibility are listed. These requirements are found on the Application for Approval to Participate in Federal Student Financial Aid Programs at <http://www.eligcert.ed.gov/>.

If the institution also wishes to participate in the Title IV programs, it must meet the financial responsibility standards and administrative capability requirements. The applicable federal regulations are 34 CFR Parts 600 and 668.

- The school must be authorized by the State in which it is located to provide an educational program that is beyond secondary education.
- The school must admit as regular students only persons who have a high school diploma or equivalent, or are beyond the age of compulsory school attendance in the State where the school is located.
- The school must provide at least one eligible program that provides an Associate's degree or higher, or provides training to students for employment in a recognized occupation and is at least 300 clock hours and 10 weeks in program length.
- The school must be accredited by an accrediting agency recognized by the Secretary of Education to accredit schools to participate in the Federal student aid programs.
- Your school must have provided its eligible program for at least two years prior to applying if it is a proprietary school, or it is public or private nonprofit school that does not offer a program that is at least 900 clock hours and 30 weeks in length. A private nonprofit school has been granted a tax exemption by IRS under 501(c)(3) of the Internal Revenue Code.

### ***Financial Responsibility***

The school must be financially responsible. As part of the application process, the school must provide, for the two most recently completed full fiscal years, financial statements that are prepared according to Generally Accepted Accounting Principles, and audited according to Generally Accepted Government Auditing Standards.

### ***Administrative Capability***

The school must be administratively capable. This includes (but is not limited to) having:

- A capable individual responsible for administering all of the Title IV programs;
- A system of internal checks and balances for administering federal student financial aid;
- A division of functions of determining student awards and disbursing funds that result from those award decisions;
- Frequent, periodic reconciliation of fiscal office and financial aid office award data;
- System to identify and resolve discrepancies in information you receive from various sources about a student's application for financial aid;
- A satisfactory academic progress policy for recipients of federal student financial aid;
- Procedures to ensure that requests for federal cash do not exceed the amount of funds you need immediately to make aid disbursements to students;
- A policy for refunding tuition when a student withdraws from classes;
- A process to ensure that you submit a required annual financial statement audit on time;
- A process to ensure that you submit a required annual compliance audit on time;
- A policy that you use the electronic processes;

### ***Guaranty Agency Eligibility***

The Secretary enters into agreements with a Guaranty Agency whose loan guarantee program meets the requirements of CFR Subpart D sub-section 682. The agreements enable the guaranty agency to participate in the Federal Family Education Loan Programs (FFEL) and to receive the various payments and benefits related to that participation. The four agreements are Basic Program, Federal advances for claim payments, Reinsurance, and Loan Rehabilitation.

### ***Lender Eligibility***

Guaranty Agencies impose the standards and procedures for which an eligible Lender may participate in the program. Lender eligibility can be limited further by Federal regulations [CFR Subpart D sub-section 682] and State regulations and guidelines.

## ***The Central Processing System (CPS)***

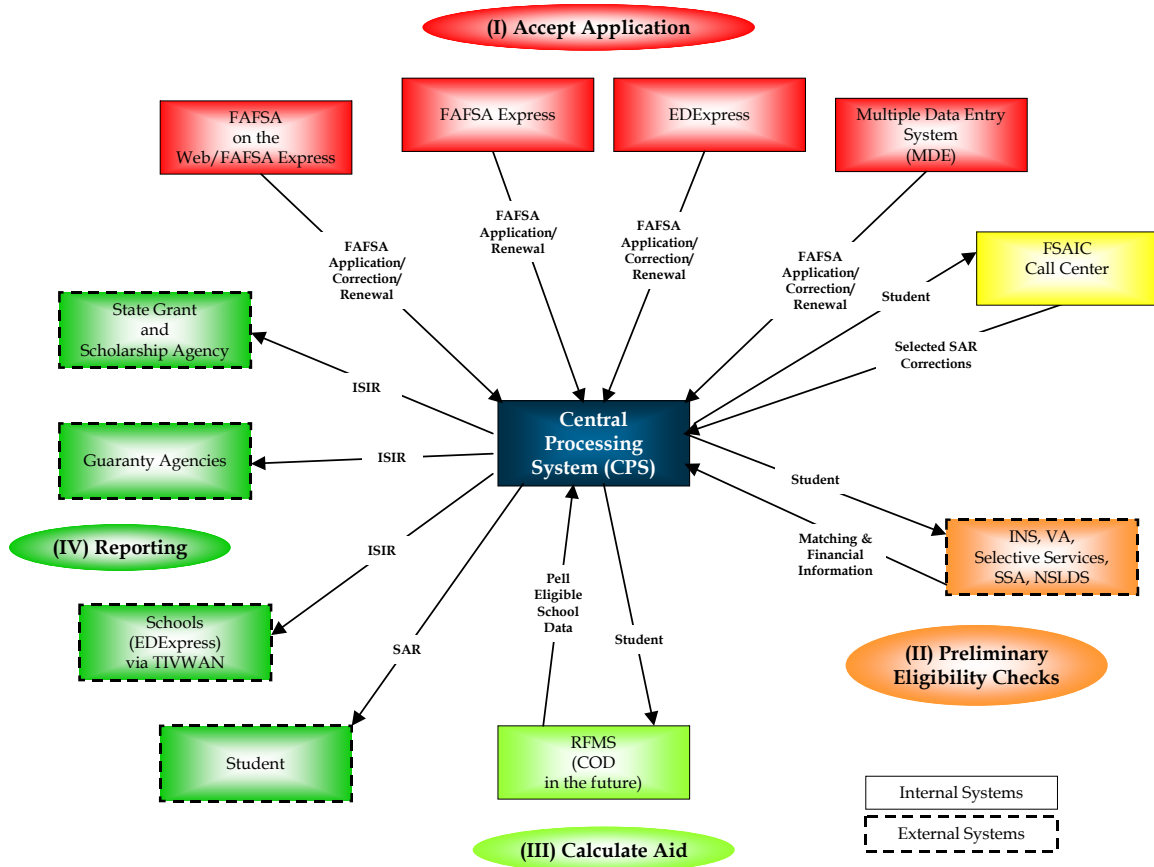
Central Processing System (CPS) is SFA's front-end system, where students can apply for aid. There are four venues available to students who are applying:

- ***FAFSA on the Web***, where students apply directly online on the Web
- ***FAFSA Express***, where students can download an application, fill in the form, and submit the application electronically
- ***EDExpress***, where Financial Aid Administrators (FAAs) can submit changes to FAFSA
- ***Paper-based forms***, where the student completes and mails in/faxes the paper FAFSA form. With this option, SFA's MDE contractors enter the FAFSA information into their own system, which transmits it to CPS.

Upon receipt of an aid application, CPS performs the following major functions:

- Accept application
- Preliminary Eligibility Checks
- Determine eligibility and calculate aid
- Communicate student eligibility to school, student, state grant and scholarship agencies, as well as other financial partners, if applicable (ISIR/SAR).

The following diagram is an overview of CPS and its interfaces, organized by the above major functions.



## CPS Data Assessment

This section describes data entities and attributes that CPS holds in its database and are required to perform its core functions. While the data entities and attributes are intentionally listed in plain language here, there is a cross-reference table at the end of this document, which identifies CPS' actual tables that map to these entities.

This section is organized by CPS' functions, followed by its data entities and attributes.

### *Function (I): Accept Application*

As indicated in the introduction, students can apply for aid through four venues:

- *FAFSA on the Web*, where students apply directly online. The information is collected in the FAFSA on the Web application and then fed to CPS electronically. Starting in 2002, Financial Aid Administrators (FAAs) will also have their own interface of FAFSA on the Web.
- *FAFSA Express*, where students can download an application, fill in the form, and submit the application electronically.
- *EDExpress*, where students apply via the school's financial aid administration office. The financial aid administrator enters FAFSA information into EDExpress, which gets submitted electronically to the TIVWAN mailbox, which in turn gets submitted to CPS.
- *Paper-based forms*, where the student completes and mails in/faxes the paper FAFSA form. With this option, SFA's MDE contractors enter the FAFSA information into their system, which submits it to CPS.

There are three scenarios for FAFSA submission: a new aid application, a renewal, and a correction. All of the above methods can be used for these scenarios of FAFSA submission.

Students can also make selected SAR-like corrections to their application through the *Department of Education Call Center (FSAIC)*. The changes made through the call center are also submitted to CPS.

The following is the data entity required for this CPS function:

<b>FAFSA</b>
<b>Student's Basic Information</b>
Full Name
Permanent Mailing Address
SSN
Date of Birth/Age
Permanent Phone No.
Citizenship/Legal Residency Information
Alien No (if any)
Marital Information
If Male, Selective Service Status
Parent's Highest Degree
Drug Convictions
Orphan or Dependent of Court?
Veteran?
<b>Attendance</b>
When Attending
Attendance (FT/PT/NA)
Degree Pursued
Grade Level
High School Graduate (Y/N)
Aid Request Information (Grants/Loans/WS)
<b>Student's (and Spouse's) Financial Info</b>
Tax Filing Info (type of form, AGI, tax paid, etc)
Net worth Information
VA Education Benefits Amount
Dependent's Information
<b>Parent Information</b>
Marital Status
SSNs
Last Names
Household Dependents
Number of College-going Dependents
State of Residence
Age of Older Parent
Tax Filing Info (type of form, AGI, tax paid, etc)
Net worth Information
VA Education Benefits Amount
Dependent's Information
<b>School Choice</b>
School Code
School Name
School Address
Housing Plan (On Campus, Off Campus, Parents)

## ***Function (II): Preliminary Eligibility Checks***

Upon receipt of FAFSA, CPS performs the following crosschecks:

- Authenticates the student's identity, by matching their social security number, name, address, etc. with the Social Security Administration
- Cross checks the student's Selective Service registration status, if the student is between 18 and 25 years of age
- Cross checks the student's or borrower's veteran status and previous VA education aid history
- Verifies legal residence or citizenship required to receive aid with the Immigration and Naturalization Service.
- Upon verifying the applicant's FAFSA information, CPS runs other eligibility checks within SFA. These processes extend into checking the applicant's student aid history. This enables CPS to determine the applicant's good standing with the Department of Education and its partners.

Internally, CPS sends student identifier data to NSLDS, which maintains comprehensive student aid history, including Direct Loans, Perkins Loans, PELL grants, and FFEL loans.

Student (as sent to SSS)
CPS Student ID
Full Name
Permanent Mailing Address
SSN
Date of Birth/Age
Permanent Phone No.
If Male, Selective Service Status

Student (as sent to SSA)
CPS Student ID
Full Name
Permanent Mailing Address
SSN
Date of Birth/Age
Permanent Phone No.
Citizenship/Legal Residency Information
Alien No. (if any)
Prison Status (Y/N + Date)

Date of Death (if applicable)
If Male, Selective Service Status

Student (as sent to VA)
CPS Student ID
Full Name
Permanent Mailing Address
SSN
Date of Birth/Age
Permanent Phone No.
Veteran?
VA Education Benefits Amount

Student (as sent to INS)
CPS Student ID
Full Name
Permanent Mailing Address
SSN
Date of Birth/Age
Permanent Phone No.
Citizenship/Legal Residency Information
Alien No (if any)

Student (as sent to NSLDS)
CPS Student ID
Full Name
Permanent Mailing Address
SSN
Date of Birth/Age

Once the external agencies have performed the cross checks, they return a valid/invalid flag back to CPS. NSLDS returns “pre-screening” information to assist CPS in determining student eligibility.

Student (from NSLDS)
NSLDS Student ID
Overpayment flags
Aid Balance History
Aid Status/Balance Changes
Student Status Flags
Contacts
Promissory Note Information

Loan (status & history from NSLDS)
CPS Student ID
Loan Type (DL, FFEL, Perkins)
Loan Status (Repayment, Delinq, Default, Paid)
Loan Balance



Number of Loans Held
----------------------

<b>Grant (status &amp; history from NSLDS)</b>
CPS Student ID
Grant Overpayment Status (Default, Paid)
Grant Amount Received
Number of Grants

*From External Agencies*

<b>Preliminary Eligibility Checks</b>
CPS Student ID
SSN
Prison Match Flag
SSS Match Flag
SSN Match Flag
INS Match Flag
VA Match Flag

### ***Function (III): Determine Eligibility & Calculate Aid***

CPS calculates an applicant's aid information, based on their Expected Family Contribution and financial standing. The aid package could include a mix of PELL grant, direct loan and/or work-study.

In determining the aid, CPS sends the student's basic data, and their eligibility status and information to RFMS, expecting RFMS to return PELL grant amount. CPS uses this information to calculate the overall aid.

<b>Student (Abbreviated Applicant Record)</b>	
<b>Student's Basic Information</b>	
	Full Name
	Permanent Mailing Address
	SSN
	Date of Birth/Age
	Permanent Phone No.
	Citizenship/Legal Residency Information
	If Male, Selective Service Status
<b>Attendance</b>	
	Grade Level
<b>Student's (and Spouse's) Financial Info</b>	
	Tax Filing Info (type of form, AGI, tax paid, etc)
	Net worth Information
	Dependent's Information
<b>Parent Information</b>	
	State of Residence
	Tax Filing Info (type of form, AGI, tax paid, etc)
	Net worth Information
<b>Additional Data</b>	
	EFC
	Authentication & Eligibility Information
	Other Interface Data

<b>Pell Eligible School Data</b>	
	School ID
	School Name
	School Address
	School Contact
	School Program Information
	Pell Eligibility
	Authorization Amount

## ***Function (IV): Communicate Eligibility (ISIR/SAR)***

Since schools know what the attendance cost is for each program, they are the ones who actually determine how much aid each student should receive. Once CPS completes its calculations, it sends each student's loan history (received from NSLDS) along with the Expected Family Contribution (EFC) through Institutional Student Information Records (ISIR). EFC is the key calculation that enables schools to package aid. Once schools determine the aid package, they share that information with lenders, guaranty agencies and RFMS.

The student is notified through the Student Aid Report (SAR). The student can then submit changes or corrections to the SAR through the FAFSA as described earlier.

ISIR and SAR essentially contain the same information but formatted differently.

<b>ISIR/SAR *</b>
<b><i>Student's Basic Information **</i></b>
<b><i>Attendance **</i></b>
<b><i>Student's (and Spouse's) Financial Information **</i></b>
<b><i>Parent Information **</i></b>
<b><i>School Choice **</i></b>
<b><i>Preliminary Eligibility Check ***</i></b>
<b>FAA Information</b>
Expected Family Contribution Calculation ****
Pell Eligibility (Y/N)
Early Analysis (Y/N)
<b>NSLDS Financial Aid History</b>
Direct Loans
FFEL Consolidated Loans
Subsidized/Unsubsidized Amounts
Percentage of the Student's Aid Used (Pell Payment Data)
Loan Detail

\* ISIR/SAR contain all FAFSA attributes in addition to the ones listed above.

\*\* See ***FAFSA*** for attributes

\*\*\* See ***Preliminary Eligibility Check*** for attributes

\*\*\*\* Key calculation that enables schools to package aid

*Cross-reference Table - Data Entities and CPS Tables*

<b>Data Entities</b>	<b>CPS Tables</b>
FAFSA	ICPS2055, TCPS2001, TCPS2031, TCPS2055, TCPS2056
Student	TCPS2001, TCPS2004, TCPS2031, ICPS2055, TCPS2056
Enrollment (from NSLDS)	TCPS2001
Loan (from NSLDS)	TCPS2004, TCPS2006
Grant (from NSLDS)	TCPS2004
ISIR/SAR	ICPS2055, TCPS2001, TCPS2031, TCPS2055, TCPS2056, TCPS2004, TCPS2006

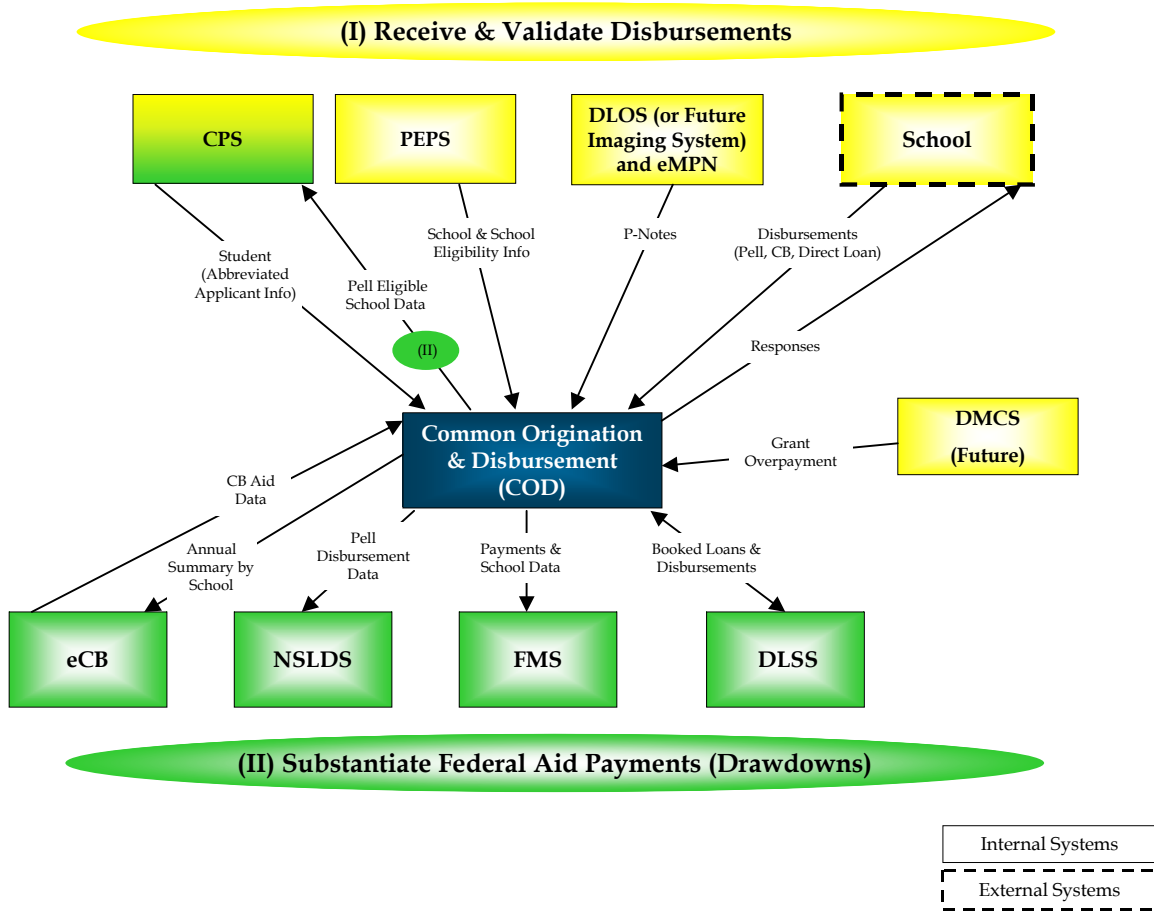
## ***The Common Origination and Disbursement (COD) System***

COD is the schools main interface into SFA. The COD application is used by SFA to receive school disbursement information for student level federal financial aid (Pell Grants, Direct Loans and, in the future, campus-based aid) and to validate aid payments (usually draw downs) to schools. COD also provides schools, financial partners and students real-time access to data via web portals.

COD performs 2 main functions:

- Receive & Validate Disbursements
- Substantiate Federal Aid Payments (Drawdowns)

The following diagram is an overview of COD and its interfaces, organized by the above major functions.



## COD Data Assessment

This section describes the key common data from COD interfaces that is required to perform COD's primary functions. The data entities are a logical grouping of data in each interface. The data attributes relate to one or more physical fields on the interface.

This section is organized by COD's functions, followed by each function's key common data entities and attributes.

### *Function (I): Receive & Validate Disbursements (Direct Loans, Pell Grants and Student Level Campus Based Aid)*

The following steps occur:

- Receive Eligibility Information
- Receive P-Note Information
- Receive & Validate Disbursements

#### Receive Eligibility Information

To support validation of school and student eligibility COD receives information from CPS and PEPS systems. COD maintains a copy of the information to support faster validation processing.

Central Processing System (CPS) - COD needs a portion of the FAFSA information to validate Pell grant and direct loan eligibility. CPS provides COD with data about applicants for loans and grants via the Abbreviated Applicant Record. The Abbreviated Applicant data (a subset of FAFSA data) will be transmitted from CPS to COD whenever CPS processes applications. The needed data is similar to the file currently provided to RFMS with a few additional fields.

Student (Abbreviated Applicant Record)
<b>Student's Basic Information</b>
Full Name
Permanent Mailing Address
SSN
Date of Birth/Age
Permanent Phone No.
Citizenship/Legal Residency Information
If Male, Selective Service Status
<b>Attendance</b>
Grade Level
<b>Student's (and Spouse's) Financial Info</b>
Tax Filing Info (type of form, AGI, tax paid, etc)

Net worth Information
Dependent's Information
<b>Parent Information</b>
State of Residence
Tax Filing Info (type of form, AGI, tax paid, etc)
Net worth Information
<b>Additional Data</b>
EFC
Authentication & Eligibility Information
Other Interface Data

Postsecondary Education Participants Systems (PEPS) – PEPS provides a daily feed of school and school eligibility data maintained within the PEPS system. The interface from PEPS is called the Daily Participants Feed. COD retains a subset of the fields in this interface file in its School file.

<b>School &amp; School Eligibility</b>
<b>School Basic Information</b>
School ID
School Name
School Address
School Web Page
School Eligibility Information
School Certification Type
School Program Information
School Type
School Calendar
Ethnic Code
Other System Data
<b>School Contact Record</b>
Contact Type
Contact Address
Contact Name
Contact Phone
Contact Email
Contact Effective Date
Contact End Date
Contact Title
<b>School ID's Record</b>
School ID's
<b>School Other Address Record</b>



Other Address
Other Contact
Experiment
<b>School Closure Record</b>
School Closure Information
<b>School Program Information</b>
PELL Program Information
FFEL Program Information
FDSL Program Information
Perkins Program Information
FSEOG Program Information
FWS (Works Study) Program Information
Other System Data

## Receive P-Note Information

For direct loans, borrowers must fill out a promissory note (P-Note). Currently the P-Note can be an electronic Master Promissory Note from the eMPN system or an imaged paper form from the Direct Loan Origination System (DLOS). In the future there will likely be a different imaging system replacing this DLOS function, but the data for the P-Note should remain the same. Once created in one of those systems, a copy of the P-Note, the endorser addendum and any subsequent updates are forwarded immediately to COD.

<b>P-Note</b>
MPN ID
Loan Type
Loan Information
School ID
Loan ID
Borrower SSN
Borrower ID
Borrower Date of Birth
Student SSN
Student ID
Student Date of Birth
MPN Dates
MPN Type

Endorser Record
Loan ID
Name
SSN
Address
Date of Birth
Drivers License
Citizenship
Alien Registration Number
Loan Amount
Borrower's SSN
Student's SSN

## Receive Disbursements from Schools

The main COD process starts after students have requested student aid via a FAFSA and gotten back a package of aid options. The students have selected their aid packages with the school. The school then disburses (Pell Grants & Direct Loans) money on behalf of the students, draws down funds from SFA and sends a batch of disbursements to COD to justify their drawdown. The disbursements are sent using the “common record” which is a standard for transmitting and receiving origination & disbursement and other information with SFA. In the past the origination and disbursement of aid were 2 separate processes. Now there is just a disbursement with a flag that can specify to “validate the record only”. This is the equivalent of originating without disbursing the aid. Later, a record can be sent to trigger the disbursement. In the near future, schools may optionally submit student level campus based aid data to COD. Schools will use the Common Record format to send this data.

### Summary of the Common Record

Entity Information
Entity Type
Entity ID

Person
Person Type
Person SSN
Drivers License
Person Name
Address
Date of Birth
Citizenship Indicator

Award Information
Award Year
Eligibility Information

Cost of Attendance
Loan Default/Grant Overpay
Incarcerated Indicator
Academic Calendar

<b>Award</b>
Award Type
Award ID
Award Amount
Origination Fee Percentage

<b>Enrollment</b>
Grade Level Indicator
Enrollment Date
Less Than Full Time Indicator

<b>Disbursement</b>
Disbursement ID (Number)
Disbursements Count
Disbursement Date
Disbursement Amount

<b>Disbursement Response</b>
Servicer Refund Amount
Servicer Refund Date
Booked Loan Amount
Booked Loan Amount date

<b>Award Response</b>
eMPN Indicator
MPN ID
MPN Status
Credit Decision Information

## ***Function (II): Substantiate Federal Aid Payments (Drawdowns)***

The following steps occur:

- Substantiate Federal Aid Payments (Drawdowns)
- Book Direct Loans
- Report Pell Data
- Summarize Student Level Campus Based Aid Data (future function)

### **Substantiate Federal Aid Payments (Drawdowns)**

COD verifies school and student eligibility information with the student and school information copied from CPS and PEPS. Student aid disbursements that can be substantiated are then aggregated for the school and forwarded to Financial Management System (FMS) for the actual accounting of funds. FMS is responsible for managing all financial transactions, the actual movement of funding authority, between SFA and Schools.

Payment
Payment ID (Number)
School ID
Fund Code
Payment Date
Payment Amount

FMS gets School reference data from the PEPS system. If the PEPS system is unavailable, COD has the ability to pass school data updates to FMS as needed to ensure financial transactions are not delayed.

School Data (Update)
School ID
Award Information
School Address

### **Book Direct Loans**

When both a disbursement record and a P-Note for a loan have been received, the loan is considered “booked”. COD sends booked direct loans daily to the Direct Loan Servicing System (DLSS) for eventual loan repayment processing. Once the loan is booked, DLSS becomes the system of record for the loan. COD also passes disbursement data to DLSS daily.

Participant
Loan ID
SSN
Birth Date
Citizenship Code
Alien Registration Number
Name
Address
Drivers License
Email
Language

School
School Name
School Address
School ID
Contact Name
Program Information
School Address
Eligibility Information

Loan
Loan ID
Borrower SSN
Borrower Name
School ID
Origination Information
Disbursement Information
P-Note
Loan Consolidation Information
Other Loan Information
Loan Terms
Attendance Information
Aid Calculation Information
Repayment Plan

Disbursement
Disbursement Number
Loan ID
SSN
Disbursement Date
Disbursement Amount
Loan Information

## Report Pell Data

COD sends Pell disbursement data daily to the National Student Loan Data System (NSLDS). NSLDS supports query and reporting access to financial aid data to a variety of internal SFA and external users.

Pell Disbursement Data
Student SSN
Date of Birth
Student Name
Convictions
Attendance
Other Pell Information
Disbursement Information
EFC & Other Aid Calculations

Currently, RFMS produces the Pell Institution Universe File for CPS. In the future, COD will send Pell eligibility data for schools daily to CPS in the Pell Institution Universe File.

Pell Eligibility School Data
School ID
School Name
School Address
School Contact
School Program Information
Pell Eligibility
Authorization Amount

COD periodically provides Pell recipient data to CPS to be used for verification analysis and end of year reporting.

Student
Student's Basic Information
SSN
Full Name
Permanent Mailing Address
Date of Birth/Age
Citizenship/Legal Residency Information
If Male, Selective Service Status
Convictions
Attendance
Enrollment Info
Grade Level

<b>Student's (and Spouse's) Financial Info</b>
Tax Filing Info (type of form, AGI, tax paid, etc)
Net worth Information
Dependent's Information
<b>Parent Information</b>
Tax Filing Info (type of form, AGI, tax paid, etc)
Net worth Information
State of Residence
<b>School</b>
School Pell ID
School Calendar
<b>Application Data</b>
EFC
Authentication & Eligibility Data
Award Information
Disbursement Information

### Summarize Student Level Campus Based Aid Data (Future)

In the future (2003), schools may optionally submit student level campus based aid data to COD. In return, COD will send, to the campus-based system (eCB), summary information in the Annual Summary by School file. This summary data will be used by eCB to pre-populate certain fields such as the "income grid" on the FISAP form. The FISAP form is used by schools to request campus based aid via the eCB system.

<Annual Summary - Not designed yet - Requirements to be gathered Fall 2002>

*Cross-reference Table - Data Entities and COD Interface Files*

Data Entities	Interface File Name or COD Tables
Student (Abbreviated Applicant Record)	Abbreviated Applicant File
School & School Eligibility	DSD Institution/School Information Transaction, Pell Institution Universe File, Recipient Record, Contact School Information, School Detail Record, School Identifier Information, School Program Information Record, School Accreditation Information, School Change of Affiliation Information, School Closure Information, School Default Management Information, School Direct Loan Information, COD to FMS - Institution Data Interface, School Other Address Information
P-Note	EMPN/Imagin PLUS MPN Record
Endorser Record	Plus endorser Record
Entity Information	Entity Information
Common Record - Entity, Person, Award Info, Award, Enrollment, Disbursement, Disbursement Response, Award Response.	Common Record blocks - Entity, Person, Award Info, Award, Enrollment, Disbursement, Disbursement Response, Award Response.
Payments (to FMS)	Could not find design for.
School Data (Update)	COD to FMS - Institution Data Interface
Participant	COD to DLSS/Daily Batch File Feed---- DBB Participant Information Transaction (Non-Financial)
School	DSD Institution/School Information Transaction
Loan	DML Loan Modification Transaction
Disbursement	FLB Subsequent Loan Disbursement Transaction, FLD Loan Disbursement Adjustment Transaction
Pell Disbursement Data	NSLDS Detail Record --- From COD to NSLDS
Pell Eligible School Data	Pell Institution Universe File
Student	Recipient Record
Application Data	Recipient Record



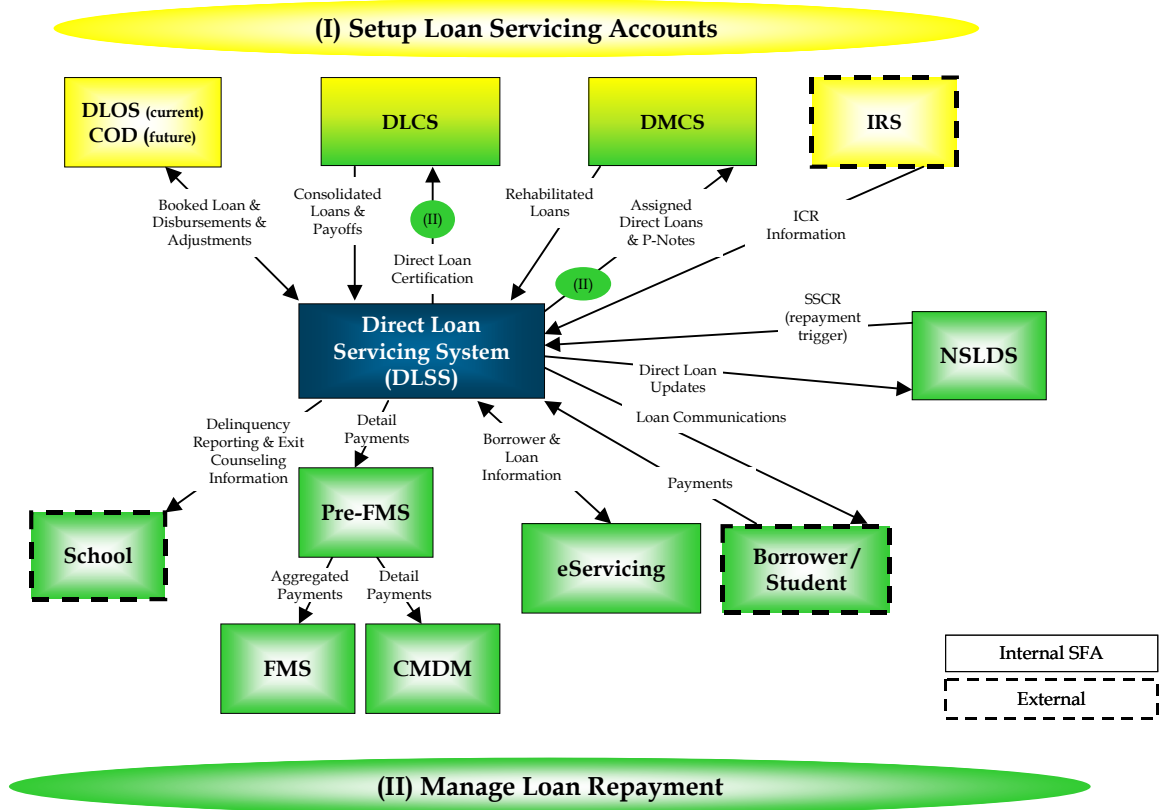
## ***The Direct Loan Servicing System (DLSS)***

DLSS is the system SFA uses to manage the direct loan repayment process.

DLSS performs the following major functions:

- Setup loan servicing accounts
- Manage loan repayment

The following diagram is an overview of DLSS and its interfaces, organized by the above major functions.



## DLSS Data Assessment

This section describes data entities and attributes that DLSS holds in its database and are required to perform its core functions. While the data entities and attributes are intentionally listed in plain language here, there is a cross-reference table at the end of this document, which identifies DLSS' actual tables that map to these entities.

This section is organized by DLSS' functions, followed by its data entities and attributes.

### *Function (I): Setup Loan Servicing Accounts*

The Direct Loan Origination System (DLOS) "books" a direct loan when it has a promissory note and a disbursement. In the future, the Common Origination and Disbursement System (COD) will do this. After the loan is in booked status it is forwarded to DLSS to set up a loan servicing account. Disbursements are also forwarded to DLSS to show how much of the loan amount has been disbursed. Except for further disbursement adjustments, after booking, DLSS becomes the system of record for the loan. Consolidated Loans are also forwarded for servicing to DLSS from the Direct Loan Consolidation system (DLCS). Defaulted direct loans from the Debt Management Collection System (DMCS) that have re-gained good standing (rehabilitated) may be returned to DLSS for servicing. DMCS returns rehabilitated loans in the same record format as DLSS sends defaulted loans to DMCS. See function II.4 below for the DMCS data table.

<b>Booked Loans &amp; Disbursements &amp; Adjustments (Mostly the same data is passed for Consolidated Loans from DLCS)</b>	
<b>Loan</b>	
Loan ID	
P-Note Information	
Loan Type	
Loan Principle	
Loan Payment Plan	
Interest Rate (DLCS only)	
Total Indebtedness (DLCS only)	
ICR Information (DLCS only)	
<b>Participant(s) - (Borrower, Student)</b>	
Participant SSN	
Participant Type	
Date of Birth	
Citizenship Indicator/Code	
Alien Registration Number	
Name	

Address
Driver License
Email
Language
<b>School</b>
School ID
School Name
School Address
Contact Name
Program Information
Eligibility Information
<b>Disbursements (for each loan)</b>
Disbursement Number
Loan ID
SSN
Disbursement Date
Disbursement Amount
<b>Adjustments (To disbursements)</b>
Disbursement Number
Loan ID
Adjustment Number
SSN
Adjustment Date
Adjustment Amount

In addition to the new consolidated loan, DLCS sends payoff transactions back to close out the original consolidated loans.

<b>Payoffs (DLCS only)</b>
Loan ID
Borrower SSN
Payoff Amount
Payoff Date

To verify eligibility for Income Contingent Repayment plans (ICR), DLSS requests borrowers' income information from the IRS.

<b>ICR Information</b>
Borrower SSN
Filing Status
Family Size
Income Amounts

## ***Function (II): Manage Loan Repayment***

Six months (grace period) after a student's enrollment status drops below part-time while in school, the normal repayment and collection cycle begins. The enrollment status of students is reported by the National Student Loan Database System (NSLDS) using SSCR (Student Status Confirmation Report). The SSCR (Student Status Confirmation Report) from NSLDS is what triggers students entering repayment.

SSCR
Student SSN
Student Name
School code (OPE ID)
Student Date of Birth
Anticipated Date of Graduation
Student Enrollment Status
Enrollment Effective Date

A servicer, acting on behalf of ED, contacts the borrower and establishes a repayment plan for the loan. DLSS bills the borrower (or sends coupons) and the Borrower submits monthly payments to the servicer who enters payment information into DLSS. Borrowers may also have loan payments automatically deducted with EDA (Electronic Debit Account) or they can pay via the Internet with eServicing. Either way the payment information is entered into DLSS.

Payments
Borrower SSN
Payment Date
Payment Type
Payment Amount

DLSS provides the data for eServicing. eServicing is expected to be the first implementation of modernization's Common Customer Care. eServicing is a project to provide web access to certain loan account information and to facilitate eBP (electronic Bill Payment). The web access is known as eCRM (electronic Customer Relationship Management) and gives borrowers some ability to update their address and other information directly via the web. The eBP will allow borrowers to see their account information and pay directly via the web. Conceptually, eServicing sits on top of DLSS in the sense that it is primarily a window into the DLSS loan and account data. Technically, some of the data is copied into the Siebel system. Siebel is the COTS package that will provide the eServicing functionality. This data is kept in sync with DLSS.

<see Loan Booking & Disbursement – eServicing will provide access to a subset of DLSS loan data.>

DLSS sends payment detail records to Pre-FMS, which pre-processes the detail payments and sends:

- Detail payments to CMDM Data Mart
- Aggregated (to school level) payments to FMS

DLSS in the future will send the aggregation of payments received as a general ledger journal entry to FMS. The following is the type of data that would likely be passed.

<see payment above for the payment detail data>

Aggregated Payments Posting (To FMS)
Posting ID
School ID
Posting Date
Fund Code
Posting Amount

Several situations may change the normal repayment process:

- 1) Deferment – Direct loan repayment can be deferred for students. Entering military service or returning to greater than half time enrollment are two examples of deferment cases.
- 2) Forbearance – Certain cases allow the forgiveness of all or part of the debt owed. For example, taking certain types of teaching jobs for a period of time may reduce the amount of debt owed.
- 3) Consolidation - Federal Family Education Loan (FFEL), Perkins Loan and Federal Direct Loan (FDL) borrowers may request that all of their qualified loans be consolidated to one new note (Federal Consolidation Loan, Direct Consolidation Loan) at an interest rate based upon the average of the underlying loans. After a borrower has requested consolidation, the Direct Loan Consolidation System (DLCS) requests and receives direct loans from DLSS to be consolidated. DLCS calls this loan data certified data since it can come from a variety of lenders who must certify that it is the correct loan data.

Loan Certification
Loan ID
Borrower ID
Lender ID
Loan Status
Loan Type
Loan Interest Rate

Loan Disbursement
Consolidation Eligibility for Loan
Loan Holder Type
Loan Status
Payoff Amount
Payoff Date
Principle Outstanding
Interest Outstanding

- 4) Default – Direct loans that are in default are sent to the Debt Management Collection System (DMCS) to be managed by debt collection experts. DLSS sends loan and loan status to DMCS.

Defaulted Loans
<b>Loan</b>
Loan ID
Loan Status
Loan Type
Student Enrollment
Principle Outstanding
Interest Outstanding
Interest Rate
<b>Borrower</b>
Borrower SSN
Borrower Address
Borrower Data of Birth
Borrower Other Details
Borrower Name

PLUS loans have a similar defaulted loan record that adds student information since the borrower is the parent.

DLSS also sends loan and payment history updates weekly to NSLDS for reporting access.

Loan Updates (To NSLDS)
Loan ID
Loan Status
Loan Amount
Student ID
Loan Term
Loan Date
Total Disbursement
Principle Outstanding
Interest Outstanding

---

Interest Rate
---------------

DLSS summarizes delinquency information from the DLSS payment history for schools.

<summarized payment delinquency data is derived from the payment history>

DLSS also supplies schools with exit counseling survey information that students have completed through SFA.

<Exit Counseling data is borrower data with some additional survey data>



***Cross-reference Table - Data Entities and DLSS Tables***

<b>Data Entities</b>	<b>DLSS Tables</b>
Aggregated Payments Posted to FMS	Aggregation done by "pre-FMS". See payments above. disb_adj_details
Defaulted Loans	borrowers, plus_loan_student, disbursement, loans, packets, parm_loan_types
ICR Information	icr_borrower
Booked Loans & Disbursements & Adjustments	borrowers, plus_loan_student, skip_trace, dib_adj_details, disbursement, consol_loan_group, disbursement, loans, packets, parm_loan_types, parm_original_lenders, plus_loan_student, fice_school_codes
Loan Certification	borrowers, disbursement, loans, packets, parm_loan_types
Loan Updates (to NSLDS)	borrowers, dib_adj_details, disbursement, loans, packets, parm_loan_types, plus_loan_student
Payments	not_on_time_pmts, on_time, on_time_pmts, on_time_pmts/ not_on_time_pmts
Payoffs (DLCS Only)	exp_payoff_tracking

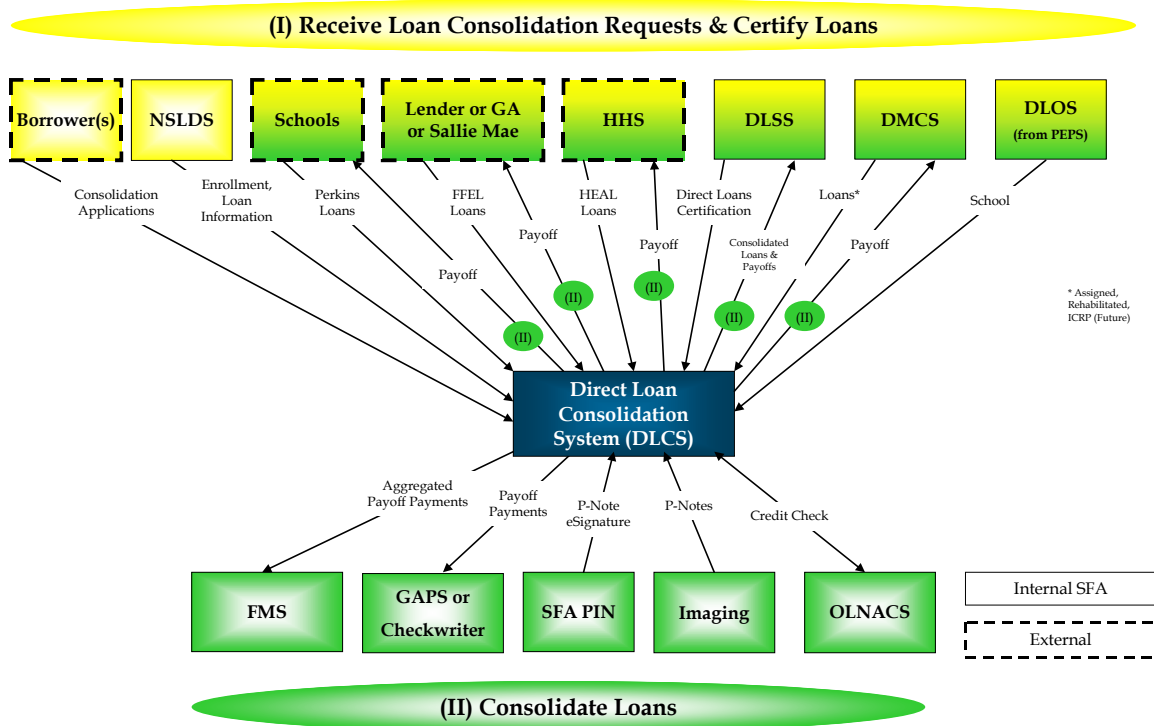
## ***The Direct Loan Consolidation System (DLCS)***

DLCS allows borrowers to consolidate multiple student loans from multiple sources into one consolidated direct loan that is funded and serviced by SFA. DLCS can consolidate a student's direct loans, FFEL, HEAL and/or Perkins loans. It can also consolidate a parents' PLUS loan(s). Defaulted loans may also be consolidated for either a student or parent.

DLCS performs the following high level function(s):

- Receive Loan Consolidation Requests & Certify Loans
- Consolidate Loans

The following diagram is an overview of DLCS and its interfaces, organized by the above major functions.



## DLCS Data Assessment

This section describes data entities and attributes that DLCS holds in its database and are required to perform its core functions. While the data entities and attributes are intentionally listed in plain language here, there is a cross-reference table at the end of this document, which identifies DLCS' actual tables that map to these entities.

This section is organized by DLCS' functions, followed by its data entities and attributes.

### *Function (I): Receive Loan Consolidation Requests & Certify Loans*

The DLCS receives loan consolidation applications from borrowers who list the loans they want to consolidate.

Consolidation Application
Application ID
Application Received Date
Borrower SSN
Borrower Address
Spouse SSN
Application Status
Loan ID(s)
Loan Amount(s)
Lender Name(s)

A consolidations worker will query NSLDS (National Student Loan Database System) to verify enrollment status, loans outstanding, loan holders and loan default status. This information is used to update the application data above to determine what loans are eligible for consolidation.

DLCS needs certified loan payoff amounts and other loan information from loan holders. For Perkins Loans, DLCS requests and receives certified loan data from schools. For FFEL loans, DLCS requests and receives certified loan data from lenders, guaranty agencies or Sallie Mae. For HEAL loans, DLCS requests and receives certified loan data from Health and Human Services (HHS). Direct loan data is retrieved directly from the Direct Loan Serving System (DLSS). Defaulted loans are retrieved directly from the Debt Management Collection System (DMCS).

Loan Certification (all loan types)
Lender ID
Loan ID
Borrower ID
P-Note Information (only DL)
Loan Type

Loan Interest Rate
Loan Disbursement
Consolidation Eligibility for Loan
Loan Holder Type
Loan Status
Payoff Amount
Payoff Date
Loan Principle Outstanding
Interest Outstanding

DLCS also stores reference data on Lenders and Schools. Lender data is maintained manually. School reference data comes from the DLOS (Direct Loan Origination System), which gets school data from PEPS (Postsecondary Education Partner System).

<b>Lender</b>
Lender ID
Lender Name
Lender Type
Lender Address

<b>School</b>
School ID
Region
School Type
School Name
School Address
School Contact
School Year

## ***Function (II): Consolidate Loans***

DLCS checks eligibility to consolidate the loans. As needed, credit checks are performed for borrowers using OLNACS (Online New Accounts Credit System) information. The pass/fail credit status is stored in DLCS for the borrower.

Different payment plans are offered to the borrower. The borrower selects a payment plan and signs a promissory note for the new consolidated loan. The P-Note can be paper and imaged for DLCS or be eSigned on the SFA PIN Site (a web interface for borrowers). An endorser addendum is added if the credit for the borrower is not sufficient.

<b>P-Note</b>
P-Note ID
P-Note Status
Loan ID
Loan Type
P-Note Signed Date
Endorser Addendum

To close out the old loans, DLCS pays off the loans being consolidated. DLCS pays-in-full (disburses) the certified loan amount provided by the “lender-holder” of the loan. Payoff information is sent back to the sources of the loans.

<b>Payoff (sent back to all loan holders – schools, Lenders, GA, Sallie Mae, HHS, DLSS, DMCS)</b>
Lender ID
Loan ID
Loan Type
Loan Payoff Principle
Loan Payoff Interest
Loan Payoff Collection Costs
Loan Payoff Date

The loan level data is transmitted to DLSS in a “booking (responsibility transfer) transaction.” At this juncture the loan is considered “booked” and becomes the responsibility of DLSS to service while in a state of repayment. DLSS has the responsibility (currently) to re-transmit the booking data to SFA/FMS for further updating to the Department of Education’s General Ledger (also defined as FMS). The new consolidation loan data (from the booking transaction) sent to DLSS is:

<b>Consolidated Loan (to DLSS)</b>
------------------------------------

Loan ID
Loan Type
Loan Interest Rate
Loan Principle
Loan Payment Plan

<b>Loan Participant (to DLSS)</b>
Participant SSN
Participant Type
Name
Address
Alien Registration Number
Citizenship Code/Indicator
Date of Birth
Drivers License

DLCS creates disbursement (booking) records for transmittal to the loan servicer (DLSS) who administrates the repayment of the new consolidation loan. There can be several disbursement records depending upon the timing of receipt of loan pay-off certifications from loan holders.

Disbursement activity can take two forms under the current practices for DLCS, and they are:

- By check – done by Checkwriter Interface
- By electronic payment – sent to GAPS for direct EFT. The GAPS interface allows electronic transfer of funds to private loan holders and enables financial tracking of funds paid to GA's, DMCS, DLSS and the DLCS bank account. Payment (PY) and Obligation (OB) transactions are used to track DLCS disbursements. Refund (RF) and Deobligation (-OB) transactions are used to track DLCS receipts.

In both instances the “booking” information would still be transmitted to DLSS for all further update and/or servicing actions to the borrower and financial ledgers. Principal financial disbursement data fields on a borrower’s loan(s) *(that would also include demographic and loan id information on the loan(s) in some form of manifest documentation)* to be paid-off are indicated below:

<b>Payoff Payments (to GAPS or Checkwriter)</b>
Disbursement ID
Disbursement Date
Lender ID
Disbursement Type
Disbursement Amount
Loan ID(s)

DLCS also sends FMS a summary of the payoff payments that is aggregated by lender and date to account for the disbursements.

<for FMS – see Payoff Payments above, but aggregate out individual loan level>



*Cross-reference Table - Data Entities and DLCS Tables*

Data Entities	DLCS Tables
School	SCHOOL, SCHOOL_ADDRESS, SCHOOL_CONTACTS, SCHOOL_YEAR
P-Note	PROM_NOTE_DETAIL, ENDORSER_ADDENDUM
Consolidated Loan (to DLSS)	LOAN_MASTER
Consolidation Application	ADI_INFO, CONSOLIDATION_APPL, CONSOLIDATION_CERT, LENDER_ALIAS, LENDERS, LOAN_ADJUSTMENT, PERSON
Lender	LENDER_ADDRESSES, LENDER_ALIAS, LENDERS
Loan Certification (all loan types)	CONSOLIDATION_CERT, CONSOLIDATION_ICR
Loan Participant (to DLSS)	LOAN_PARTICIPANT, PERSON
Payoff (sent back to all loan holders--Schools, Lenders, GA, Sallie Mae, HHS, DLSS, DMCS)	SUPPORT_CERT
Payoff Payments (to GAPS or Checkwriter)	LENDERS, LOAN_DISBURSEMENT

## ***The Debt Management and Collection System (DMCS)***

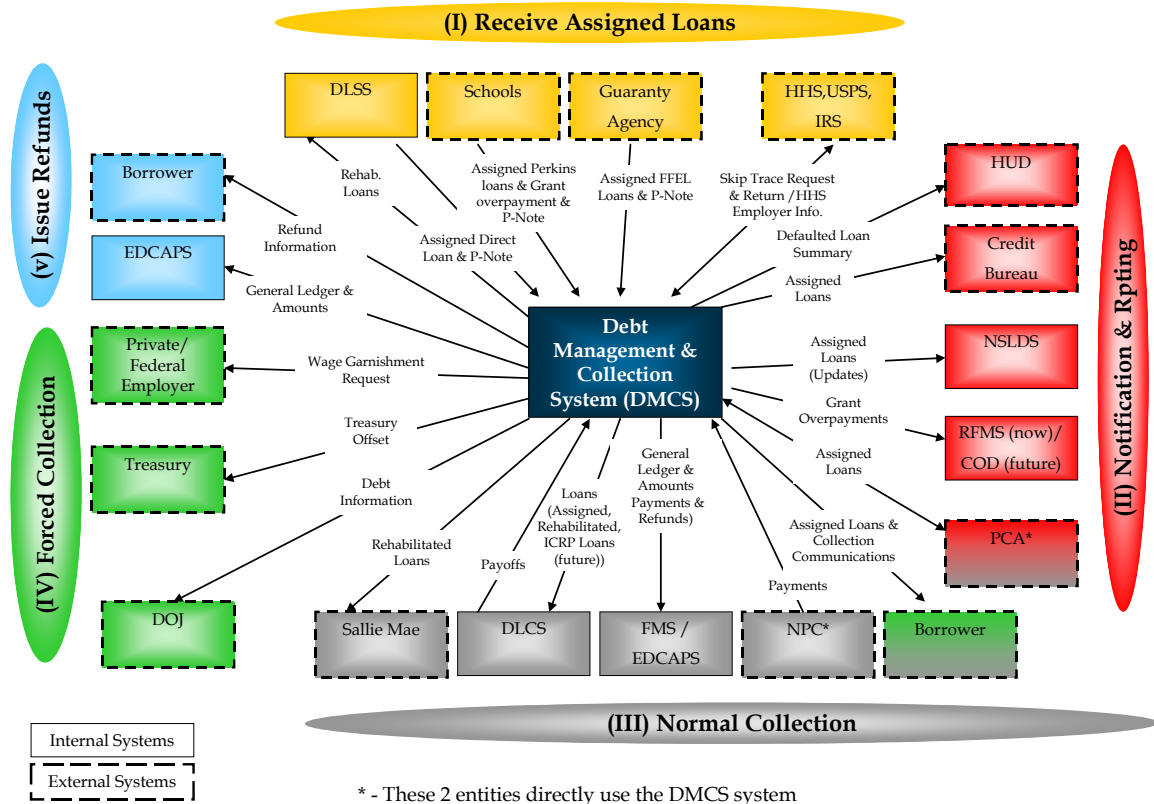
The Debt Management and Collection System (DMCS) is a subsystem within the FFEL system, which manages and collects on student aid defaults. These include defaulted (“assigned”) loans and grant overpayments.

The debt collection process involves SFA’s own personnel in three regional offices, Private Collection Agencies (PCA), the National Payment Centers (NPC), one Student Loan Processing Center (SLPC) and two Customer service centers (PIC contract). The PCA’s can help in every aspect of the collection process, including skip tracing. The NPC is responsible for receiving payments from borrowers and depositing them into the Federal Reserve Bank.

DMCS performs the following major functions:

- Receive Assigned Loans and Grants
- Notification & Reporting
- Normal Collection
- Forced Collection
- Issue Refunds

The following diagram is an overview of DMCS and its interfaces, organized by the above major functions. The general sequence of DMCS events on the diagram is laid out clockwise, following the numbering. However, many of the functions are optional and many happen at different times in a debt’s lifecycle.



## DMCS Data Assessment

This section describes data entities and attributes that DMCS holds in its database and are required to perform its core functions. While the data entities and attributes are intentionally listed in plain language here, there is a cross-reference table at the end of this document that identifies DMCS' actual tables that map to these entities.

This section is organized by DMCS' functions, followed by its data entities and attributes.

### *Function (I): Receive Assigned Loans*

When a loan is in default status, it is sent to the DMCS system to manage collection activities. If grant money was overpaid or paid and the student did not attend the school, that money must be repaid by the student. Some grant overpayments are collected using DMCS.

DMCS receives:

- Defaulted direct loans from the Direct Loan Servicing System (DLSS)
- Defaulted FFEL loans from the 36 Guaranty Agencies (GA subsystem)
- Defaulted Perkins loans from schools
- Identified grant overpayments from schools that the schools can not collect.

Upon receipt of these assigned loans and grant overpayments, DMCS establishes an account to manage the collection process. In cases where a debtor has multiple defaulted loans or grants overpayments, DMCS establishes multiple debts for the account. SFA optionally assigns an account to a Private Collection Agency (PCA). A PCA is expected to collect money from defaulted borrowers. The Agency is also expected to keep DMCS up to date on the collection status related to that account.

<b>Assigned Loans &amp; Grant Overpayments</b>	
<b>Borrower/Student - - Used to create Account Record or match to existing Account</b>	
	Borrower SSN
	Borrower Address
	Borrower Date of Birth
	Borrower Other Details
	Borrower Name
<b>Loan/ Grant - - Used to create Debt Record</b>	
	Loan ID/Grant ID
	GA ID (If FFEL)
	Lender ID (If FFEL)
	School ID
	Debt Number
	Debt Sequence Number

Debt Received Date
Outstanding Principle
Outstanding Interest
Total of Payments Made
Last Payment Date
Debt Current Balance
Debt Interest Rate
Debt Variable Interest Rate
Loan Guarantee Date (only loans)
P-Note ID (only loans)
P-Note Type (only loans)
P-note Date (only loans)

DMCS receives some GA, School and Lender information on debt coming in. DMCS maintains reference data for these entities for the official collections contact addresses. These entities are currently not automatically synced up with the PEPS system reference data or any other system.

Reference Data
<b>School</b>
School ID
School Type
School Name
School Address
School Eligibility
<b>Guaranty Agency</b>
Guaranty Agency ID
Guaranty Agency Name
Guaranty Agency Address
Guaranty Agency Contact
Guaranty Agency Type
Guaranty Agency other information
<b>Lender</b>
Lender ID
Lender Address
Lender Contact
Lender Programs
Lender Institution type
Lender Other Information

If locating the borrower is a problem, then SFA performs “skip tracing”, which seeks borrower location information from SSA, USPS, and the IRS. SFA also receives a quarterly update from the National Database of New Hires from HHS, which is used to determine the employer and address for employees (borrowers).

<b>Skip Trace Request (to USPS, IRS)</b>
Borrower SSN
Full Name

<b>Skip Trace Return (from USPS, IRS)</b>
Borrower SSN
Found? (Y/N)
Updated Name
Updated Telephone
Updated Address

<b>Employer Information (from HHS)</b>
Borrower SSN
Borrower Name
Borrower Address
Employer information

## ***Function (II): Notification & Reporting***

DMCS notifies other systems and entities of the defaulted loan/grant. This is an ongoing process through out the life of the defaulted loan/grant. Loan/grant information is sent to the following (in most cases a subset or summary of this detailed information is sent):

- HUD (debt summary information so they can check eligibility for FHA loans)
- Credit Bureau (a summary of the loan/grant debt and status (debt due, paid off, etc.))
- NSLDS (loan updates – for reporting access)
- RFMS (current) and COD (future) receives grant overpayment information.
- Private Collection Agency (via online access for collections activity)
- Borrower (notification and collections communications)

<see Assigned Loans & Grants above for data>

### ***Function (III): Normal Collection***

Initially DMCS sends the defaulted borrower a notice letter indicating that the loan(s) are in default or that they need to repay a grant overpayment. The debt can be outsourced to a private collection agency or worked by SFA. Either way, the borrower is contacted to negotiate repayment terms. The borrower sends payments into the National Payment Center (NPC) and payment amounts are entered into DMCS.

Payments
Debt ID
Sequence Number
Journal Voucher Number
Payment Applied to Principle
Payment Applied to Interest

DMCS also creates a payments posting file for FMS (the file was originally sent directly to EDCAPS, but now is intercepted by FMS). FMS forwards the payments to the EDCAPS general ledger.

General Ledger Amounts (Payments)
Posting ID
Posting Document Type
Posting Date
Posting Document Number
Posting Total Amount

General Ledger and Amounts (Refunds)
Batch Number
Loan ID/Grant ID
Disbursement Date
Disbursement Amount

Payoff
Disbursement ID
Disbursement Date
Lender ID
Disbursement Type
Disbursement Amount
Loan ID(s)



### ***Function (IV): Forced Collection***

If the normal collection process fails, forced collection can be attempted. There are three primary ways to forcibly collect on student aid debt.

- Request a Treasury Offset, which will deduct debt from federal monies that would be going to the borrower such as an income tax refund.
- Request a wage garnishment from their employer (federal or private).
- Request the Department of Justice to sue for the debt.

All three methods send a summary of the debt (subset of the assigned loan & grant overpayment information) out and receive back payments if successful. Payment information is recorded in DMCS by the NPC.

<see Assigned Loans & Grant Overpayment and Payments above for data>

### ***Function (V): Issue Refunds***

If DMCS determines or is notified that a borrower is owed a refund by SFA, DMCS sends a refund disbursement request and corresponding general ledger entries to EDCAPS for payment. EDCAPS records the information and requests Treasury to send the refund check to the borrower.

Refund
Borrower SSN
Loan ID/ Grant ID
Loan Type/ Grant Type
Refund Amount
Refund Date

General Ledger Amounts (Refunds)
Posting ID
Posting Document Type
Posting Date
Posting Document Number
Posting Total Amount

*Cross-reference Table - Data Entities and DMCS Tables*

<b>Data Entities</b>	<b>DMCS Tables</b>
Assigned Loans & Grants (Borrower, Account, Loan, Debt)	ADDR-REC, CLAIM-REC, COMMITMENT, DEBT-REC
Reference Data (School, Guaranty Agency, Lender)	GA-ADDRESS, GA-RECORD, LENDER, LENDER-REC, LENINST_REC, SCHOOL
Skip Trace Request/Reply, Employer Information	ACCT-REC, ADDR-REC
Payment	PAYDTL-REC
General Ledger and Amounts (Payments)	POSTCTL-REC
Refund	COLL-COSTSCR-REC, COMMITMENT
General Ledger and Amounts (Refunds)	FISLDSB-REC

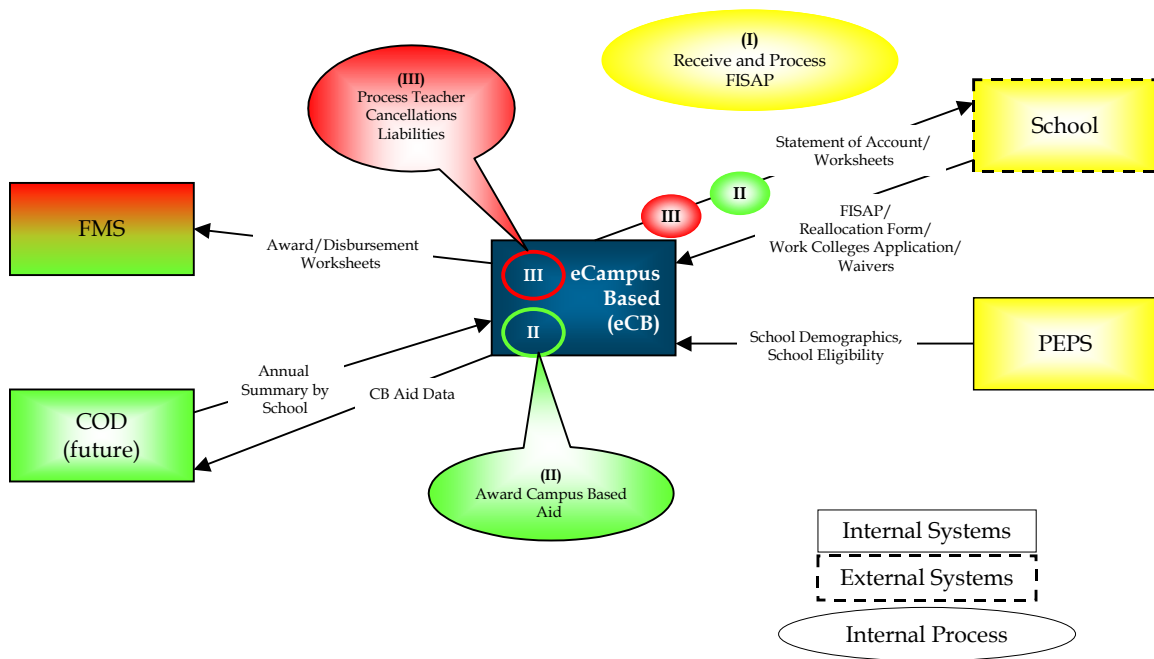
## ***The Electronic Campus Based (eCB) System***

The electronic Campus-Based System (eCB) is SFA's system where schools apply for Title IV campus based aid. It processes FISAP (Fiscal Operations Report and Application to Participate) data received and calculates funding for each school for the Federal Perkins Loan, Federal Supplemental Educational Opportunity Grant (FSEOG) and Federal Work-Study (FWS) programs.

At a high level, eCB performs the following functions:

- Receive and Process FISAP
- Award Campus Based Aid
- Process Teacher Cancellations Liabilities

The following diagram is an overview of eCB and its interfaces, organized by the above functions.



## eCB Data Assessment

This section describes data entities and attributes that eCB holds in its database and are necessary to perform its core functions. While the data entities and attributes are intentionally listed in plain language here, there is a cross-reference table at the end of this document, which identifies eCB's actual tables that map to these entities.

This section is organized by eCB's functions, followed by its data entities and attributes.

### *Function (I): Receive and Process FISAP*

Schools are expected to submit FISAPs by October of each year.

The FISAP consists of three main parts:

- Identifying Information, Certifications and Warnings (School Demographics)
- Application to Participate
- Fiscal Operations Report (prior year spending of campus based aid)

Schools are not required to complete the entire application. However, if they are requesting funds for the upcoming year, they need to provide identifying information, certification and warnings along with the application to participate for the next round of funding. If schools do not wish to participate in the following year, but have received funds in the current year, they need to complete the fiscal operations reports (where they must indicate the amount of funds and where funds were spent).

Two months before schools submit their FISAPs, they have the option of reporting unspent FSEOG, FWS, and Perkins Loan fund amounts awarded from the prior year directly into eCB's reallocation form. Once they submit the form, eCB deobligates the returned funds from the school. This money is put into a pool and reallocated to schools that did not receive the full initial awards due to lack of funding. These reallocations are called supplemental awards and are dispersed in September.

Two additional fields on the reallocation form allow schools to request more funds for Federal Work Study, however the schools must meet certain criteria in order to qualify for the funds.

If a school chose not to return funds on the allocation form and it reports unused funds greater than 10% on the FISAP, eCB system will impose a penalty on it. The penalty consists of a reduction in the next year's allocation by an amount equal to the total amount that was not spent in the prior year.

Any school may request a waiver of the penalty for the under use of prior award year funds. The Secretary may waive this requirement for a specific institution if the Secretary finds that enforcement of the requirement would be contrary to the interest of

the affected campus-based program. Schools must provide a written waiver request and any supporting information or documents by the established closing date. These waivers are submitted via fax to the eCB staff and entered into the eCB system.

The following are certain types of waivers:

- Underused Waiver
- Community Service Waiver
- Title III Waiver

Reallocation Form
School Serial Number
School Name
School Address
Unexpended FSEOG Amount
Unexpended FWS Amount
Unexpended Perkins FCC Amount

FISAP can be submitted electronically or by mail. In either case, the FISAP information is entered into eCB . eCB verifies the information and eligibility of each school with the data it receives from PEPS (Post secondary Education Participants System). The file includes school information such as address, eligibility and certification information. If eCB finds errors or inconsistencies, it prompts schools to edit and resubmit their FISAP.

School (as extracted from PEPS)
School OPE ID
School Type Code
School Name
School Address
Country Name Code
Owner
Owner Type
Approval ID number
Education Site IND
Ability to Benefit IND
Degrees Offered IND
PELL Number
TRADE Name
FAADS Code
Application Code
Application Date
Assigned Initial Name
Current Award Year Begin and End Date
Accreditation Type Code
Accreditation Date

<b>FISAP</b>
<b>Identifying Information, Certification, Warnings (Part I)</b>
School Serial Number*
School Name
School Address
School Type
Owner Demographics
<b>Application to Participate for Award Year (Part II)</b>
Federal Perkins Loan Level of Expenditures
Federal Perkins Loan Federal Capital Contributions
FSEOG Federal Funds
FWS Federal Funds
Federal Perkins Loan Program Liquidation Request
Total Number of Students for Undergrad/Grad Programs
Assessments and Expenditures for previous year
Information on Eligible Aid Applicants for previous year
<b>Federal Perkins Loan Program (Part III)</b>
Fiscal Report
Fund Activity
Final Adjusted FCC authorization*
Unexpended amount of adjusted FCC*
Cumulative Repayment Information
Cohort Default Rate*
<b>FSEOG Program (Part IV)</b>
Federal Funds Authorized for FSEOG
Federal Funds available for FSEOG Expenditures
Funds to FSEOG recipients
Funds spent for FSEOG Program*
Use of FSEOG authorization
<b>FWS Program (Part V)</b>
Federal Funds Authorized for FWS
Federal Funds available for FWS Expenditures
Funds to FWS recipients
Funds spent for FWS Program*
Use of FWS authorization
Information about the Job Location and Development Program (JLD)
Information about FWS students activities
<b>Program Summary Award Year (Part VI)</b>
Distribution of program recipients and expenditures by type of student
Calculation of administrative cost allowance

\* - Key fields



## ***Function (II): Award Campus Based Aid***

Before eCB can initiate the award processing, the eCB staff needs to develop various scenarios for calculating the awards. Using various formulas, eCB staff generates and stores different simulations in eCB using a set of fixed parameters to determine fairly the Supplemental (Reallocation) and Perkins Service Cancellations (TC) awards. ECB uses the simulations to execute quality control of the FISAPs and identify wild swings in the reported numbers in comparison to prior years data.

For each award determination, eCB performs school eligibility verification against the information it received from PEPS. If there is an ineligible school, eCB does not allocate funds for it. If the school is eligible, eCB uses the stored simulations to generate the award amounts.

In January, eCB distributes the tentative funding level amounts to schools (an estimation letter that shows approximate award amounts). The purpose of this letter is to give the school a chance to confirm the requested award amounts with the SFA's calculations.

In March, eCB distributes the final funding notifications (Statement of Account letters) of the award amounts to each school.

<b>Statement of Accounts (as sent to Schools)</b>
OPEID Number
DUNS Number
School Name
School Address
Grant Period
FSEOG GAPS Award Number
FSEOG Transaction Amount
FWS GAPS Award Number
FWS Transaction Amount
Federal Perkins Loan Program FCC
Federal Perkins Loan Program LOE

In addition to the awards and disbursement, eCB extracts the following data and transmits it to FMS:

- Perkins Loan Balance Sheet information (extracted from the FISAP)
- The FISAP-based expenditure information (total expenditures for the FSEOG, FWS, and Perkins Loan programs)

<b>Award/Disbursement (as sent to FMS)</b>
OPEID Number
DUNS Number
School Name
School Address

---

Grant Period
FSEOG GAPS Award Number
FSEOG Transaction Amount
FWS GAPS Award Number
FWS Transaction Amount
Federal Perkins Loan Program FCC
Federal Perkins Loan Program LOE
Account Classification Code
Perkins Loan Balance Sheet
FISAP-based expenditure info

In the future, schools who send optional student level campus based aid data to Common Origination and Disbursement System (COD) will receive an annual summary from COD.

### ***Function (III): Process Teacher Cancellations Liabilities***

In May of each year, eCB sends data on the unpaid teacher cancellations liabilities upon completion of the calculations to FMS. These are Federal Perkins Loan Service Cancellation Reimbursement and Payment letters (worksheets) notifying schools of their upcoming reimbursement amounts due to Teaching/Military/Volunteer/Law Enforcement/Child/Family/Early Intervention/Nurse/Medical Technician Service, and the accumulated interest.

eCB also calculates the amounts based on fiscal operations data provided by the schools on the FISAP forms and forwards it to FMS for accounting purposes. The generated worksheets for each school contain data on the cumulative FCC amounts, total capital contribution amounts, contribution ratios and amounts related to the number of teachers, military servicemen, volunteers, nurses and law enforcement participants in the upcoming award year.

eCB sends worksheet listings to each school and then provides FMS with the unpaid teacher cancellations liabilities.

<b>Worksheets (as sent to FMS and School)</b>
OPEID Number
DUNS Number
School Name
School Address
FCC Amounts (Cumulative and Adjusted)
Total Capital Contribution Amount
Contribution Ratio
Total Cumulative TM (Sec 208)
Cumulative Reimbursements (Volunteers/Servicers)
Amount Due
Amount to be Reimbursed
Unpaid Sec 465 amount in the following fiscal year

*Cross-reference Table - Data Entities and eCB Tables*

Data Entities	eCB Tables
Reallocation Form	Reallocation
School	School
FISAP	WORK COLLEGE, DEPENDENT ELIGIBILITY APPLICATIONS INFORMATION, INDEPENDENT ELIGIBILITY APPLICATIONS INFORMATION, APPLICATION, PERKINS COHORT, PERKINS CUMULATIVE REPAYMENT, PERKINS FISCAL REPORT, FSEOG, FWS, PERKINS FUND ACTIVITY, NONTRADITIONAL ENROLLMENT INSTITUTION, INSTITUTION ADDRESS, INSTITUTION OFFICER, INSTITUTION TYPE, PROGRAM SUMMARY
Statement of Account/Award/Disbursement	ADMINCOSTALLOW, APPLICATION, DESCR, FUNDS2CARRYFORWARD1, INSTITUTION WAIVER, PRIOR YEAR AWARD, SCHOOL, APPLICATION, PRIOR YEAR AWARD, SCHOOL
Worksheets	PERKINS FISCAL REPORT, PERKINS FUND ACTIVITY, INSTITUTION, INSTITUTION ADDRESS

## ***The Financial Management System (FMS)***

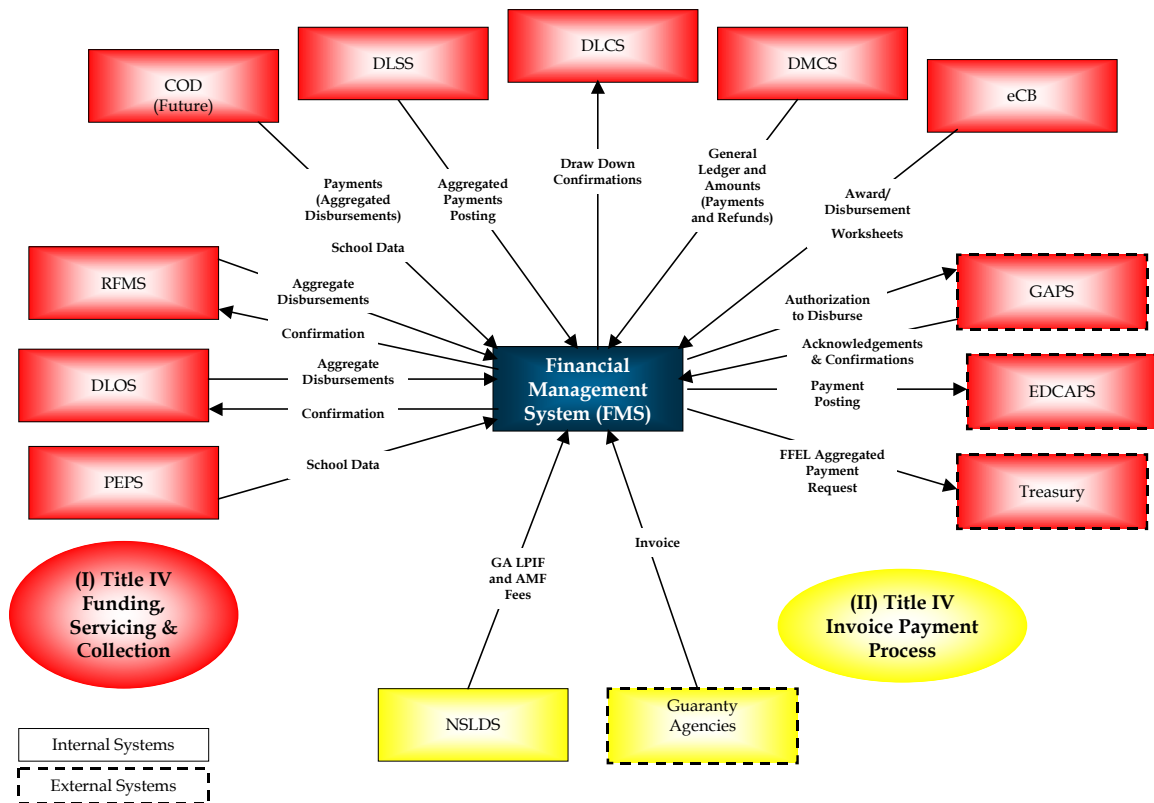
The Financial Management System (FMS) is the single SFA-wide, integrated financial management and reporting system. FMS provides SFA with a single-point for SFA program funding and financial data. It will also provide continuous tracking of funds to institutions.

FMS performs the following major functions

- Title IV Funding, Servicing and Collection
- Title IV Invoice Payment Process

FMS performs various other financial functions, such as budgeting, administrative and accounting, which we are not addressing in this document.

The following diagram is an overview of FMS and its interfaces, organized by the above major functions.



## FMS Data Assessment

This section describes data entities and attributes that FMS holds in its database and are required to perform its core functions. This section is organized by FMS' functions, followed by its data entities and attributes.

### *Function (I): Title IV Funding, Servicing and Collection*

As mentioned before, FMS manages all financial transactions, the actual movement of funding authority, between SFA and Schools, GAs and Lenders.

Direct loan and Pell Grant disbursement of funds are completed through draw down, prior to FMS receiving the actual disbursement record. Once GAPS disburses the funds, it returns confirmation of disbursement to FMS, which sends that information to DLCS and DLOS for Direct loans, and RFMS for Pell Grants. COD will handle this information in the future.

Disbursement
Disbursement ID (Number)
Vendor ID (School/GA/Lender)
Invoice Number
Disbursement Date
Disbursement Amount

Student aid disbursements that can be substantiated are then aggregated then sent from COD to FMS for the actual accounting of funds.

Payment (Aggregated Disbursements)
Payment ID (Number)
School ID
Fund Code
Payment Date
Payment Amount

FMS also gets school data updates from the PEPS system. If the PEPS system is unavailable, COD has the ability to pass school data updates to FMS as needed to ensure financial transactions are not delayed.

School Data
School ID
Award Information
School Address

FMS currently receives the aggregated Direct Loan payments as a general ledger journal entry from DLSS. The following is the type of data that would likely be passed.

<b>Aggregated Payments Posting</b>
Posting ID
Posting Date
Fund Code
Posting Amount

DMCS also posts aggregations of debtor payments and refunds to FMS. These payments are posted to EDCAPS by FMS.

<b>General Ledger and Amounts (Payments)</b>
Posting ID
Posting Deposit Date
Posting Document Number
Posting Total Amount

<b>General Ledger and Amounts (Refunds)</b>
Batch Number
Loan ID/Grant ID
Disbursement Date
Disbursement Amount

Some of this data is directly posted to general ledger, whereas some of the data goes through accounts payable first, then is moved to general ledger.

FMS also processes campus-based awards and disbursements and sends the information to GAPS. eCB is the system in charge of calculating and awarding campus-based aid. Once eCB has completed the award calculation process it sends award and disbursement information to FMS. This information includes school demographics, the different type of awards, and the amounts that each school is entitled to in the upcoming award year.

The following table contains the provided data:

<b>Award/Disbursement</b>
OPEID Number
DUNS Number
School Name
School Address
Grant Period
FSEOG GAPS Award Number
FSEOG Transaction Amount
FWS GAPS Award Number
FWS Transaction Amount
Federal Perkins Loan Program FCC
Federal Perkins Loan Program LOE
Account Classification Code



Perkins Loan Balance Sheet
FISAP-based expenditure info

In addition to the awards and disbursement information, FMS receives from eCB:

- Perkins Loan Balance Sheet information (extracted from the FISAP)
- The FISAP-based expenditure information (total expenditures for the FSEOG, FWS, and Perkins Loan programs)

FMS also receives data from eCB on the unpaid teacher cancellations liabilities upon completion of the calculations. These are Federal Perkins Loan Service Cancellation Reimbursement and Payment letters (worksheets) notifying schools of their upcoming reimbursement amounts due to Teaching/Military/Volunteer/Law Enforcement/Child/Family/Early Intervention/Nurse/Medical Technician Service, and the accumulated interest.

eCB also calculates the amounts based on fiscal operations data provided by the schools on the FISAP forms and forwards it to FMS for accounting purposes. The generated worksheets for each school contain data on the cumulative FCC amounts, total capital contribution amounts, contribution ratios and amounts related to the number of teachers, military servicemen, volunteers, nurses and law enforcement participants in the upcoming award year.

The following table contains information received from eCB:

<b>Worksheets</b>
OPEID Number
DUNS Number
School Name
School Address
FCC Amounts (Cumulative and Adjusted)
Total Capital Contribution Amount
Contribution Ratio
Total Cumulative TM (Sec 208)
Cumulative Reimbursements (Volunteers/Servicers)
Amount Due
Amount to be Reimbursed
Unpaid Sec 465 amount in the following fiscal year

## ***Function (II): Title IV Invoice Payment Process***

FMS receives Lenders and GAs invoices. In order to calculate GA fees, FMS receives LPIF (Loan Processing Issuing Fee) and AMF (Account Maintenance Fee) from NSLDS. Using this data, FMS calculates GA fees, processes the information then sends the payment request to Treasury, which sends the payment to the appropriate GA.

FMS also processes Direct loan and debt collection overpayment refunds, processes the information, and sends a request to Treasury to complete the payment.

Invoice
Invoice ID
Last Update Date
Last Updated by
Vendor ID
Invoice Number
Currency Information
Invoice Amount
Vendor Site ID
Amount Paid
Discount Amount Taken
Invoice Date
Source
Invoice Type
Description
Batch ID
Amount Applicable to Discount
Tax Amount
Term ID
Term Date
Payable Information
Payment Status Flag
P.O. Information
Good Received Date
Invoice Received Date
Voucher Number
Approved Amount
Earliest Settlement Date
Original Prepayment Amount
Document Sequence ID
Document Sequence Value
Document Category Code
Attribute Category
Approval Status

Approval Description
Invoice Distribution Total
Posting Status
Prepay Flag
Authorized by
Cancelled Date
Cancelled By
Cancelled Amount
Temp Cancelled Amount
Project Accounting Context
Project ID
Task ID
Expenditure Type
Expenditure Item Date
PA Quantity
Expenditure Organization ID
PA Default Dist
Vendor Prepay Amount
Payment Total Amount

<b>Loan Processing Issuing Fee</b>
LPIF ID
Filename
Period End Date
GA Code
Fee Amount
Invoice Amount
Status
Error Reason

<b>Account Maintenance Fee</b>
AMF ID
Filename
Fiscal Year
GA Code
Fee Amount
Fourth Quarter Actual
Fourth Quarter Adjusted
Adjusted Amount
Projected Quarterly Payment
Status
Error Reason

### *Cross-reference Table - Data Entities and FMS Tables*

<b>Data Entities</b>	<b>Interface File Name or FMS Tables</b>
Common Record - Entity, Person, Award Info, Award, Enrollment, Disbursement, Disbursement Response, Award Response.	Common Record blocks - Entity, Person, Award Info, Award, Enrollment, Disbursement, Disbursement Response, Award Response.
Disbursement	could not find design for
School Information Update	COD to FMS - Institution Data Interface
Disbursement	disbursements, disb_activity_hist, disb_adj_details
Payments	bill_dates,
Aggregated Payments Posted to FMS	Disb_adj_details ?
Statement of Account/Award/Disbursement	Prior Year Award, School, Institution Waiver
Worksheets	OPEID Number, DUNS Number, School Name, School Address, FCC Amounts, Total Capital Contribution Amount, Contribution Ration, Total Cumulative TM, Cumulative Reimbursements, Amount Due, Amount to the Reimbursed, Unpaid Amounts
Invoice	AP_INVOICE_ALL
Loan Processing Issuing Fee	FFELGA_NSLDS_LPIF_FEES
Account Maintenance Fee	FFELGA_NSLDS_AMF_FEES

## ***The National Student Loan Data System (NSLDS)***

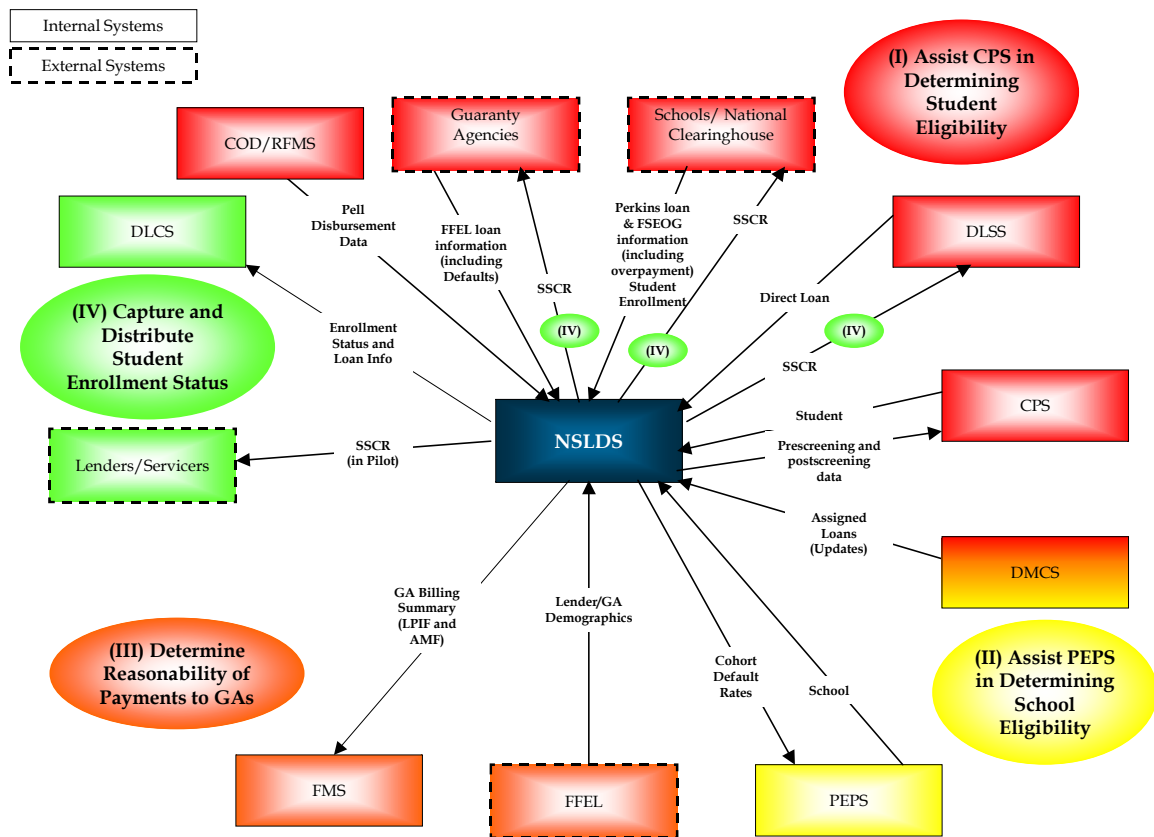
National Student Loan Data System (NSLDS) is currently the only system that centralizes and consolidates Title IV data from both internal Student Financial Assistance (SFA) systems and external sources. It maintains direct loan, FFEL, Perkins, Pell Grants, and enrollment history at the loan/grant level, by student/borrower, going back to 1965. It also maintains default loan as well as Pell, FSEOG and Perkins overpayment.

NSLDS collects information from schools, the FFEL community, and internal SFA systems to perform the following key functions:

- Assist CPS in determining student eligibility,
- Assist PEPS in determining school eligibility,
- Determine reasonability of payments to guarantors for the financial partners channel,
- Capture and distribute student enrollment status to the FFEL community,

NSLDS is the defacto data warehouse for SFA, since it collects information for Title IV to serve several reporting functions for schools, FFEL community, SFA's analysis group, financial partners, students, as well as external groups, such as the IG, GAO, and researchers.

The following diagram is an overview NSLDS and its interfaces, organized by the above major functions.



## NSLDS Data Assessment

This section describes data entities and attributes that NSLDS holds in its database and are required to perform its core functions. While the data entities and attributes are intentionally listed in plain language here, there is a cross-reference table at the end of this document, which identifies NSLDS' actual tables that map to these entities.

This section is organized by NSLDS' functions, followed by its data entities and attributes.

### *Function (I): Assist CPS in determining student eligibility*

NSLDS receives information from multiple systems. It does so to assist the Central Processing system to determine student eligibility to receive aid. These systems and the type of information sent by them are:

- COD/RFMS sends Pell grant disbursement data.
- GAs send FFEL loan origination, repayment status and balance, at the loan level, by student/borrower. In the future, all loan details will be collected from the GAs by FMS, and sent to NSLDS.
- Schools send Perkins loan disbursement, repayment status and balance, as well as Perkins Loan, FSEOG and Pell overpayment data, at the loan/grant level, by student/borrower. Schools also send enrollment status and information.
- DLSS sends direct loan repayment status and balances at the loan level, by student/borrower.
- When a borrower/student goes into default, NSLDS gets info on that student and loan from DMCS, for direct loan, FFEL loan, Perkins loan, as well as grant overpayments.

NSLDS receives a request for student loan and grant history from CPS. CPS uses this information to determine student eligibility. Therefore, CPS requests this information from NSLDS by sending student identifiers. NSLDS queries its database for student loan history, and returns prescreening results to CPS for further calculation, i.e., those who are in default for existing loans, or owe overpayment on existing grants, as well as those who have borrowed the maximum allowed amount.

NSLDS also post screens Title IV aid applicants to identify those whose eligibility changes after the time of their original aid application was pre-screened.

Pell Disbursement Data (from COD/RFMS)
Student SSN
Date of Birth
Student Name
Convictions
Attendance
Other Pell Information

Disbursement Information (dates, amounts, terms, etc...)
EFC and Other Aid Calculation

<b>Direct Loan (from DLSS)</b>
Loan ID
Student ID
Borrower ID
Total Disbursement
Loan Balance
Loan Amount
Loan Term
Loan Date
Principle Outstanding
Interest Outstanding
Loan Status
Interest Rate

<b>Perkins Loan &amp; FSEOG (from Schools)</b>
Loan ID
Student ID
Total Disbursement
Loan Balance
Loan Amount
Loan Term
Loan Date
Loan Status
Interest Rate
Current School OPE ID

<b>FFEL Loan (from GA)</b>
Loan ID
Student ID
Total Disbursement
Loan Balance
Loan Amount
Loan Term
Loan Date
Loan Status
Interest Rate
Current Lender ID
Current GA code

<b>Student Enrollment - SSCR (from Schools)</b>
Student ID
School ID
Enrollment Status

<b>Assigned Loans &amp; Grants (from DMCS)</b>
Student ID
Loan ID



Loan Type
Total Disbursement
Outstanding Balance
Overpayment Information
Overpayment Date
Current Lender ID
Current GA code
Current School Code
Collection Information

<b>Student (from CPS)</b>
Student ID
Full Name
Permanent Mailing Address
SSN
Date of Birth/Age

Prescreening and postscreening data

<b>Grant (status &amp; history to CPS)</b>
Student ID
Grant Overpayment Status (Default, Paid)
Grant Amount Received
Number of Grants

<b>Loan (status &amp; history to CPS)</b>
Student ID
Loan Type (DL, FFEL, Perkins)
Loan Status (Repayment, Delinq, Default, Paid)
Loan Balance
Number of Loans Held

## ***Function (II): Assist PEPS in determining school eligibility***

One of the key functions of NSLDS is to calculate the cohort default rate for each school. The cohort default rate is the key in determining each school's eligibility, and managing the school, i.e., if the school's default rate is high for several consecutive years, SFA needs to warn them.

As mentioned before, NSLDS is the defacto data warehouse for SFA loans and grants. It uses the loans and grants default information from DMCS, along with school records it receives from PEPS to calculate cohort default rates per school, since it has a full view of what percentage of students have defaulted loans in each school.

Default rates are calculated twice a year: first, the default rates are calculated in January and submitted to the schools. Schools can go through the appeals process for some of the loans. The official cohort default rates are calculated and submitted to schools in August of every year. This default rate is secret and proprietary to each school.

In order to do so, NSLDS receives school identifiers from PEPS that assist it in calculating each school's cohort default rate. Once this calculation is complete, the rates are returned to PEPS.

<b>School (from PEPS)</b>
School OPE ID
School Type Code
School Name
School Address
Loan ID
Loan Type
Grant ID
Current Award Year Begin and End Date

<b>Cohort Default Rates (to PEPS)</b>
School OPE ID
Cohort Year
Loan Default Amount
Official Cohort Rate
Loan Repayment Amount

***Function (III): Determine reasonability of payments to guarantors and lenders***

NSLDS receives GA/Lender demographics from the FFEL system. In order to calculate GA fees, NSLDS sends LPIF (Loan Processing Issuing Fee) and AMF (Account Maintenance Fee) to FMS.

<b>GA (from FFEL)</b>
GA Code
GA Name
GA Address
GA Invoice

<b>Lender (from FFEL)</b>
Lender Code
Lender Name
Lender Address
Lender Invoice

<b>Loan Processing Issuing Fee</b>
LPIF ID
Filename
Period End Date
GA Code
Fee Amount
Invoice Amount
Status
Error Reason

<b>Account Maintenance Fee</b>
AMF ID
Filename
Fiscal Year
GA Code
Fee Amount
Fourth Quarter Actual
Fourth Quarter Adjusted
Adjusted Amount
Projected Quarterly Payment
Status
Error Reason

***Function (IV): Capture and distribute student enrollment status***

DLSS, lenders and GA systems determine the repayment status of the borrower. This status is based on the student's enrollment status (full-time/part-time/NA). For systems such as DLSS, as well as for the FFEL community, NSLDS collects the student's enrollment status, and disseminates a Student Status Confirmation Report (SSCR). This information allows the organizations/systems to know when to start the repayment process for the borrower, or put the student in deferment status.

SSCR
Student SSN
Student Name
School code (OPE ID)
Student Date of Birth
Anticipated Date of Graduation
Student Enrollment Status
Enrollment Effective Date

As indicated earlier, since NSLDS holds loan-level information on all Title IV student aids, it also makes that data available for policy, analysis and research. Some key capabilities include:

- Audit and program review,
- Research studies and policy development,
- Perform budget analysis,
- Track loan transfers, i.e., when FFEL loans get sold from one lender to another.

*Cross Reference: NSLDS Key Business Entities to Data Dictionary's Entities*

Data Entities	NSLDS Tables
Grant	PELL_GRT, STU
Student	STU, SCH, LOAN, PELL_GRT
Loan	LOAN, STU
Default & Grant Overpayment	AID_Ovrpmt, COLL
School	SCH, SCH_BR, LOAN, PELL_GRT
Default Rates	SCH, DEF_RT_HIS, DEF_RT_CAL_RQ
GA	GA
Lender	LEN
Account Maintenance Fee	FFELGA_NSLDS_AMF_FEES (FMS table)
Loan Processing Issuing Fee	FFELGA_NSLDS_LPIF_FEES (FMS table)
SSCR	SSCR_TRSMTL_DET, STUD, SSCR_TRSMTL_HIS, STU_BR, STU_STAT

## ***Data Mart Integration Framework, 2001***

### **Data Mart Integration**

#### ***Introduction***

SFA has several data marts in operation and development:

- The Chief Financial Office (CFO) data mart
- The Financial Partners (FP) data mart
- The Delinquent Loans (DL) data mart
- The Credit Management (CM) data mart.

With more data marts planned over FY02 and FY03 (e.g. NSLDS, FP Mart II & III), it is important to establish standards to enable data sharing and to streamline data mart development.

This project was approved by the Investment Review Board to develop those standards, which are presented here. The standards are referred to as the “Data Mart Integration Framework, 2001.” It is expected that the Framework will be maintained by the Architecture Working Group, and will be actively used by new data mart developers. Existing data marts may choose to utilize the Framework if there are compelling business reasons.

We’ve also recommended a maintenance and review process for ensuring that the Framework will continue to meet enterprise data mart integration needs, as well as ensuring that the data mart teams adhere to, and/or help improve the Framework.

#### **Framework Development Process**

The Framework was developed using existing data mart designs and by collaborating with the data mart teams. The following diagram shows the major steps in the development process:



Beyond this project, the Data Architecture team should be consulted for consistency in format and naming conventions.

## *Data Mart Integration Framework, 2001*

The Framework consists of standardized “dimensions” and the recommended maintenance and review processes. See below for a list of standardized dimensions. Dimensions enable grouping, categorization and aggregation of performance metrics in data marts.

Standard Dimensions	CFO Data Mart	FP Data Mart	DL Data Mart	CM Data Mart	New
School			X	X	
Borrower			X	X	
Loan Type		X	X	X	
Lender		X			
Guaranty Agency		X			
Fund	X				
Date	X	X	X	X	
Address		X	X	X	
Grant					X
Servicer					X

The above matrix shows that some of the standards (i.e. school, borrower) are currently used in more than one data mart. These dimensions, while sharing some common elements, are structured differently, hence the need for standardization.

Within the borrower dimension, for example, the DL mart captures the borrower’s middle initial information. The CM mart does not currently capture borrower middle initial information, but does capture email information and zip + 4 descriptions which the DL mart does not. The CM mart and the DL mart both capture social security information for a borrower, but within the CM mart it is used as the unique identifier for a borrower record, and just as a regular attribute within the DL mart, which uses a borrower ID as the unique identifier for a borrower record.

This section shows the recommended attributes in each of the above 10 dimensions.

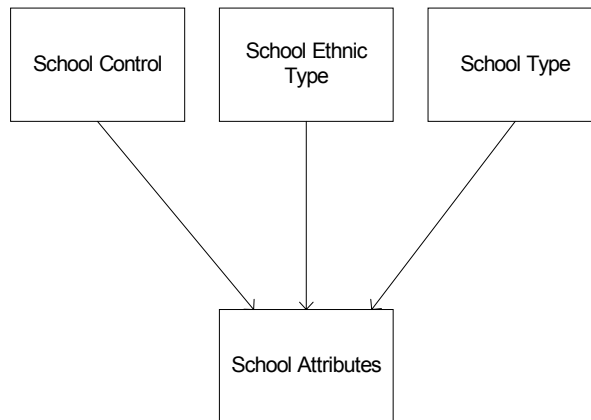
### The School Dimension

Attribute Name	Attribute Description
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Attribute Name	Attribute Description
School Id	Unique identifier for the school
School Address Id	School address identifier, used to link up to address dimension table to retrieve school address information
School Congressional District ID	The congressional district for a school
School Short Name	The short name description of a school
School Long Name	The long name description of a school
School Code Desc	The school code description
School Wan Inst Name	Wan instance name for a school
School Wan Participation Year	Wan participation year for a school
School Wan Title4 Address	Wan title IV address for a school
School Wan Cycle	Wan cycle for a school
School Wan Format Code	Wan format code for a school
School Wan Switch	Wan switch for a school
School Dun Number	Dun Number for a school
School Control Desc	Control description for a school (public, private, foreign, etc.)
School Ethnic Type Desc	Ethnic type description for a school (native american, hispanic, historically black, etc.)
School Type Desc	School type description (two year school, four year school, etc.)

Some possible drilldown/rollup paths for the school dimension are depicted below:



### The Borrower Dimension

Attribute Name	Attribute Description
Borrower Id	Unique identifier for a borrower
Borrower Address Id	Borrower address identifier, used to link up to address dimension table to retrieve borrower address information
Borrower Congressional District ID	The congressional district for a borrower
Borrower Social Security Number	Social Security number of a borrower
Borrower First Name	The first name of a borrower
Borrower Middle Initial	The middle initial of a borrower
Borrower Last Name	The last name of a borrower
Borrower Birth Date	The birth date of a borrower
Borrower Home Phone Number	The home phone number for a borrower
Borrower Home Phone Number Condition Flag	A condition flag indicating whether a home phone number is valid or not for a borrower
Borrower Email Address	The email address of a borrower
Borrower Email Address Condition Flag	A condition flag indicating whether an email address is valid or not for a borrower
Borrower Business Phone Number	The business phone number of a borrower
Borrower Business Phone Number Condition Flag	A condition flag indicating whether a business phone number is valid or not for a borrower

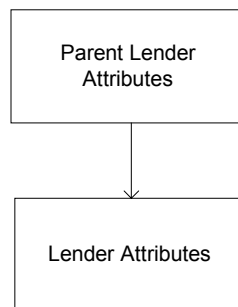
### The Loan Type Dimension

Attribute Name	Attribute Description
Loan Type Id	Unique identifier for a specific type of loan
Loan Type Acronym	The acronym for a specific type of loan
Loan Type Desc	The description of a specific loan type

## The Lender Dimension

Attribute Name	Attribute Description
Lender	Unique identifier for a specific lender
Lender Address Id	Lender address identifier, used to link up to address dimension table to retrieve lender address information
Lender Name	The name of a specific lender
Lender Active Flag	A flag indicating whether a lender is active or not
Lender Parent Lender Id	Unique identifier for a lender's parent lender
Lender Parent Lender Name	The name of a lender's parent lender

**Some possible drilldown/rollup paths for the lender dimension are depicted below:**

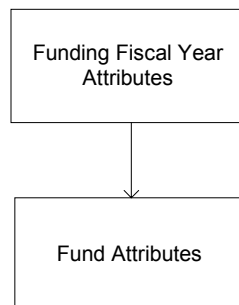


## The Guaranty Agency Dimension

Attribute Name	Attribute Description
GA Id	Unique identifier for a specific guaranty agency
GA Address Id	Guaranty agency address identifier, used to link up to address dimension table to retrieve guaranty agency address information
GA Name	The name of a specific guaranty agency
GA Contact Name	The contact name for a guaranty agency
GA Contact Phone Number	The contact phone number for a guaranty agency
GA Active Flag	A flag indicating whether a guaranty agency is active or not
GA Revised Agency Name	The revised agency name for a guaranty agency

Attribute Name	Attribute Description
Fund Id	Unique identifier for a specific fund
Fund Desc	The description for a specific fund
Fund FY Id	Identifier for a funding fiscal year
Fund FY Desc	The funding fiscal year description

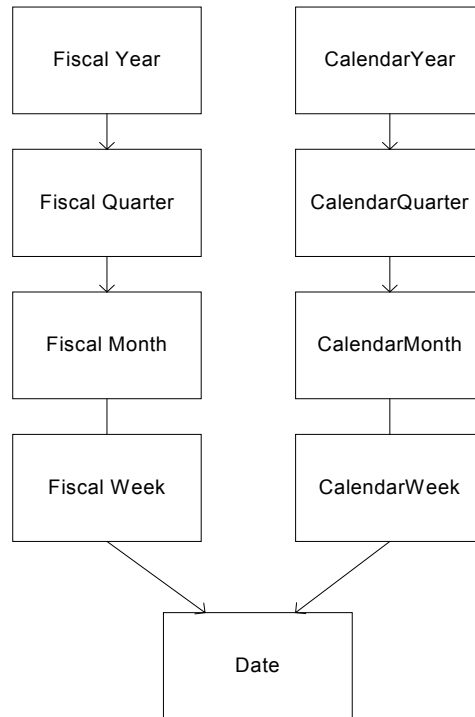
Some possible drilldown/rollup paths for the fund dimension are depicted below:



## The Date Dimension

Attribute Name	Attribute Description
Date Id	The specific date that an activity took place
Date Desc	The description of the specific date that an activity took place
Calendar Week Id	The identifier of the calendar week associated with a specific date; week ending date is always a Saturday.
Calendar Week Desc	The description of the calendar week associated with a specific date
Calendar Month Id	The identifier of the calendar month associated with a specific date
Calendar Month Short Desc	The short description of the calendar month
Calendar Month Long Desc	The long description of the calendar month
Calendar Quarter Id	The identifier of the calendar quarter associated with a specific date; a grouping of 3 calendar months
Calendar Quarter Short Desc	The short description of the calendar quarter
Calendar Quarter Long Desc	The long description of the calendar quarter
Calendar Year Id	The calendar year
Fiscal Week Id	The identifier of the fiscal week (based on the financial calendar) associated with a specific date; week ending date is always a Saturday
Fiscal Week Desc	The description of the fiscal week associated with a specific date
Fiscal Month Id	The identifier of the fiscal month associated with a specific date
Fiscal Month Short Desc	The short description of the fiscal month
Fiscal Month Long Desc	The long description of the fiscal month
Fiscal Quarter Id	The identifier of the fiscal quarter associated with a specific date; a grouping of 3 fiscal months
Fiscal Quarter Short Desc	The short description of the fiscal quarter
Fiscal Quarter Long Desc	The long description of the fiscal quarter
Fiscal Year Id	The fiscal year; grouping of 52 fiscal weeks / 12 months that comprise the fiscal year

Some possible drilldown/rollup paths for the date dimension are depicted below:



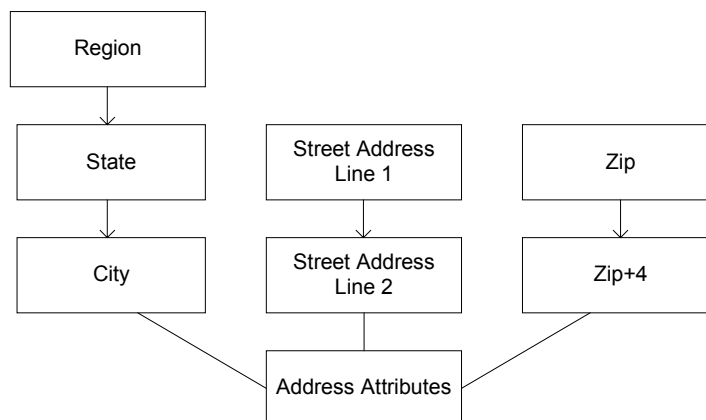
**Key Recommendation:**

The “date” dimension should contain all addresses on the same physical data structure, regardless of the date that is being stored. The view of delinquent date, for example, would be a function of the data mart’s query feature.

## The Address Dimension

Attribute Name	Attribute Description
Address Id	Unique identifier for a specific address location
Address Street Address Line 1	Line 1 of the street address for a specific address location
Address Street Address Line 2	Line 2 of the street address for a specific address location
Address City Id	The identifier for a specific city where an address is located
Address City Desc	The name of the city where a specific address is located
Address State Code	The state code of the state where a specific address is located
Address State Desc	The name of the state where a specific address is located
Address Zip Code	The 5 digit zip code for a specific address location
Address Zip Code Plus 4	The full 9 digit zip code for a specific address location
Address Region Id	The identifier for a specific region associated with an address location
Address Region Desc	The name of the region associated with an address location
Address Condition Flag	A condition flag indicating whether an address is valid or not
Address Foreign Address Flag	A flag indicating whether an address is within the United States or if it is a foreign address

Some possible drilldown/rollup paths for the address dimension are depicted below:



### Key Recommendation:

The “address” dimension should contain all addresses on the same physical data structure, regardless of the address that is being stored. The view of GA address, for example, would be a function of the data mart’s query feature.

### The Grant Dimension

Attribute Name	Attribute Description
Grant Id	Unique identifier for a specific grant
Grant Desc	The description of a specific grant

### The Servicer Dimension

Attribute Name	Attribute Description
Servicer Id	Unique identifier for a specific servicer
Servicer Address Id	Servicer address identifier, used to link up to address dimension table to retrieve servicer address information
Servicer Name	The name of a specific servicer

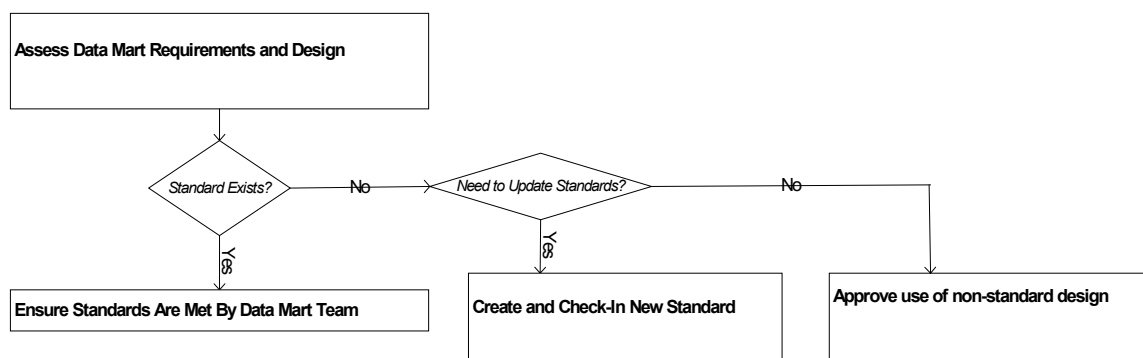
While one key activity of the framework was to standardize the above dimensions, we have presented additional recommendations for specific usage of the date and address dimensions.



## ***Recommended Framework Maintenance and Review Process***

Equally important as the enterprise standards is the framework maintenance and review process to ensure proper usage, maintenance, and adherence of the framework. The framework is a living entity, and will be updated and enhanced based on new business requirements and increased input from data mart architects. As the first iteration of the framework, the Data Mart Integration Framework, 2001 will see its value grow over time. The following flow diagram is from a data mart architecture perspective and illustrates the process components of the maintenance and review model for the Data Mart Integration Framework, 2001:

### **DATA MARTS:**



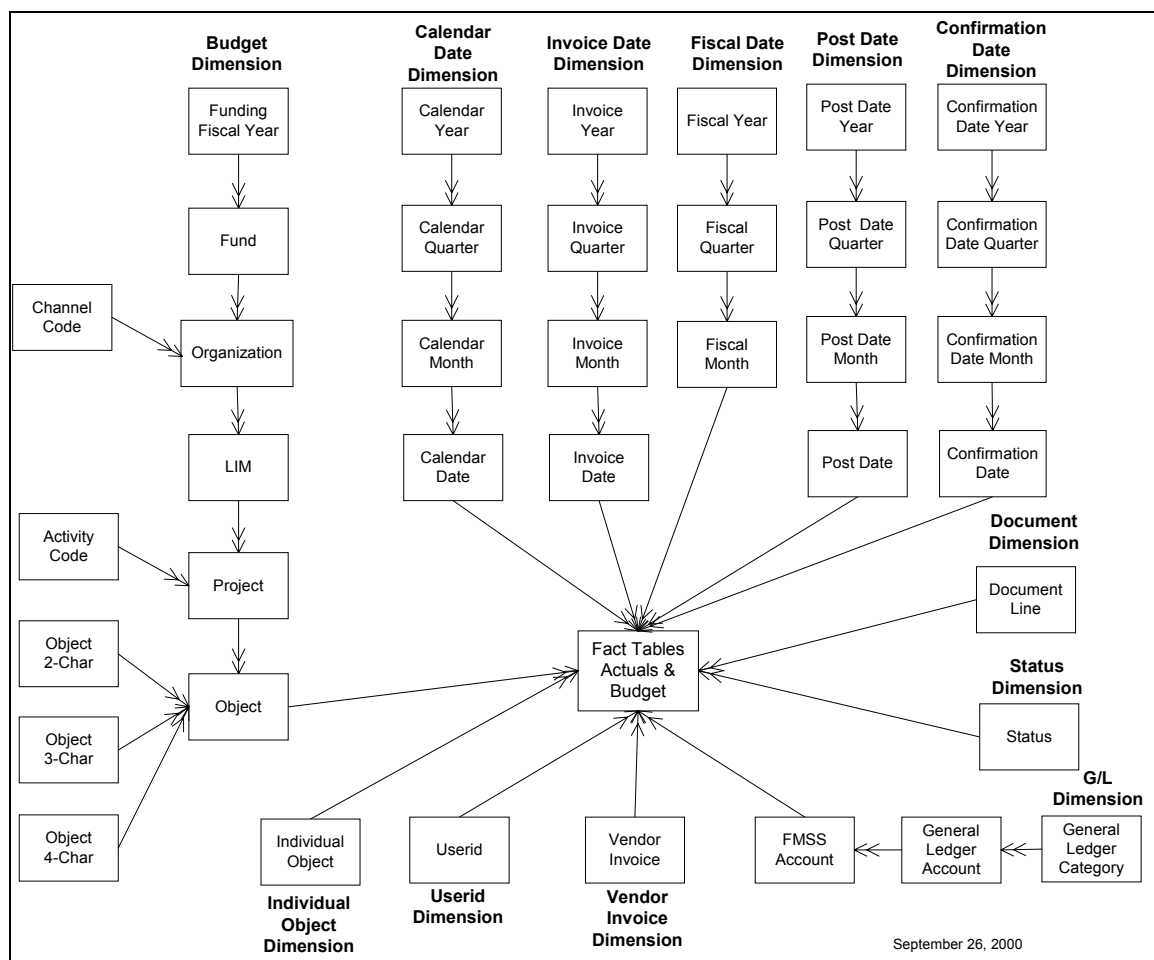
The Architecture Working Group, in conjunction with SFA CIO Data Warehouse Architecture, should oversee maintenance of the framework. Responsibilities of maintaining and reviewing the framework include:

- Ensuring data mart owners are aware of the data mart integration framework and how to use it
- Approving new standard dimensions for inclusion into the framework based on a valid business case
- Approving updates and changes to existing framework based on a valid business case
- Approving exemptions from framework compliance based on a valid business case
- Oversight of a single standard dimension repository staging area which all data marts must 'check-out' the standards from to ensure conformity across data marts
- Ensuring consistent naming conventions for standards
- Ensuring consistent data value definitions for standards
- Ensuring consistent data types for standards

## The CFO Data Mart

The CFO mart provides an automated financial analysis and reporting process for the CFO. Information in the data mart is focused on budgeting, expense reporting and forecasting. By providing users with an automated and flexible view of financial data from FMSS (Dept. of Ed's Financial System), the CFO mart eliminated an otherwise manual reporting process.

For specific technical information, please refer to the CFO Data Mart design documents. Below is the CFO logical data model:



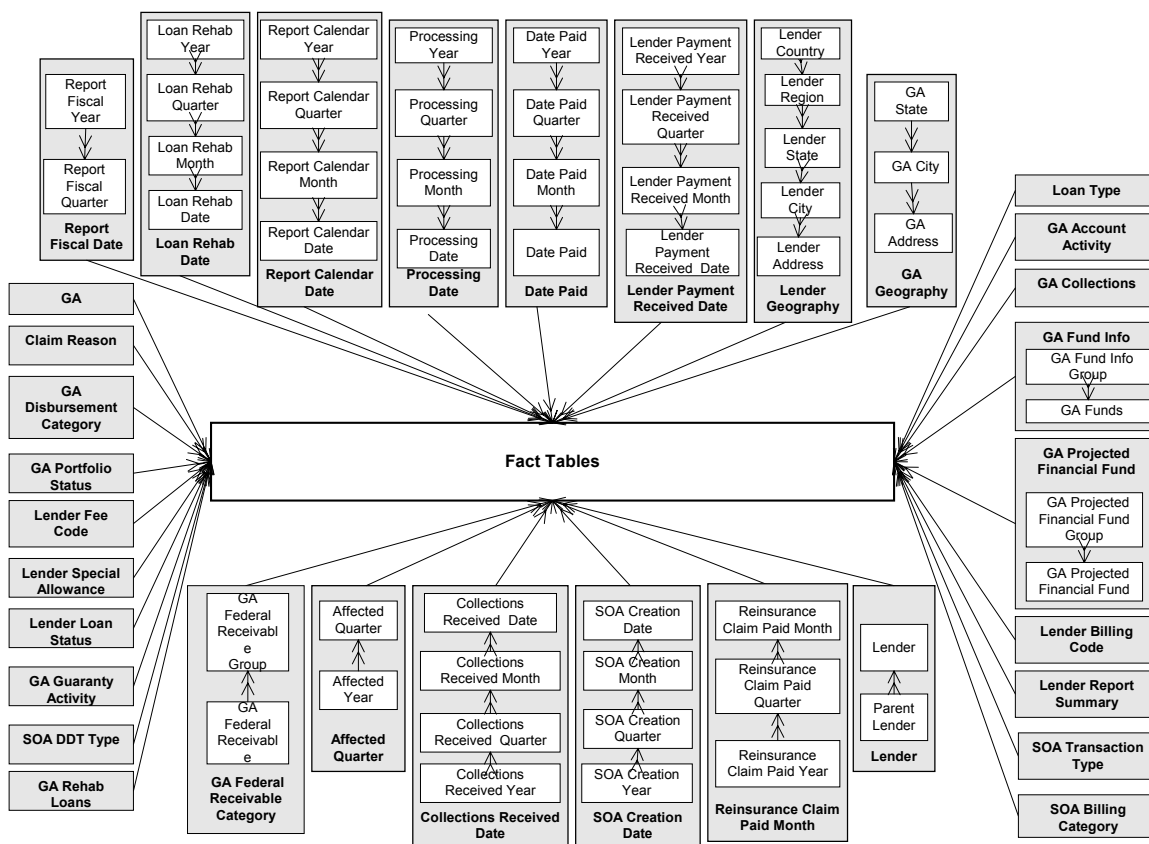
*CFO Data Mart Logical Model*

## The Financial Partners Data Mart

The FP mart holds centralized information associated with student lending among Financial Partners (guaranty agencies, lenders, and servicers). This information is used within the Financial Partners channel to help risk management, customer relationship management, compliance management, and portfolio management. The current release of the financial partners data mart focuses on guaranty agency and lender information. Servicing information will be included in a future enhancement release of the financial partners data mart.

The FFEL system was used to populate FP's database. To satisfy some user requirements, lender associations and some Form 1130 annual data that do not exist in the FFEL system are also placed into the data mart.

For specific technical information, please refer to the FP Data Mart design documents. Below is the FP logical data model:



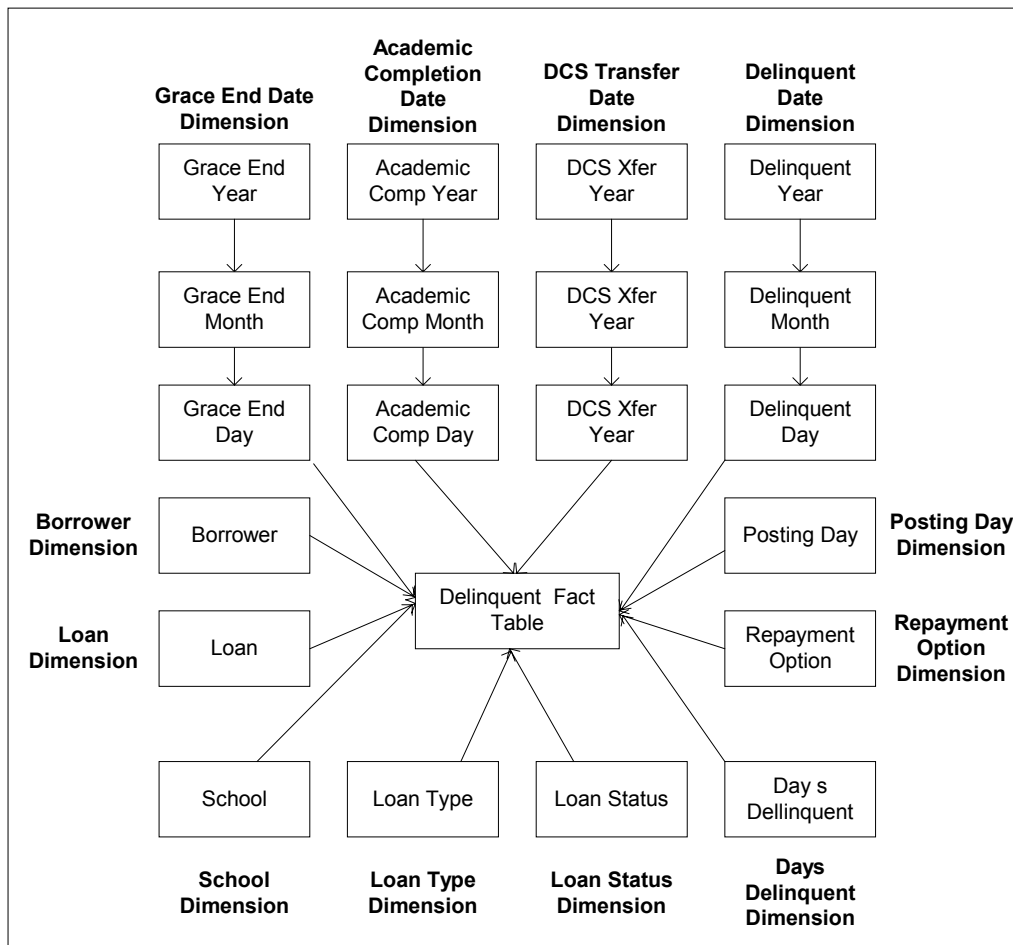
*Financial Partners Data Mart Logical Model*

## *The Delinquent Loans Data Mart*

The DL mart provides delinquent loans reporting to schools and SFA. This capability was transferred from the tomb-stoned CDS system. The DL mart, unlike the old CDS delinquency reports, maintains historical data and can be used for trend analysis by student, student groups, schools, etc.

The mart generates two reports – one for SFA use, categorized by school and student, and the other for schools with student delinquencies for that school (note that the same report has two formats).

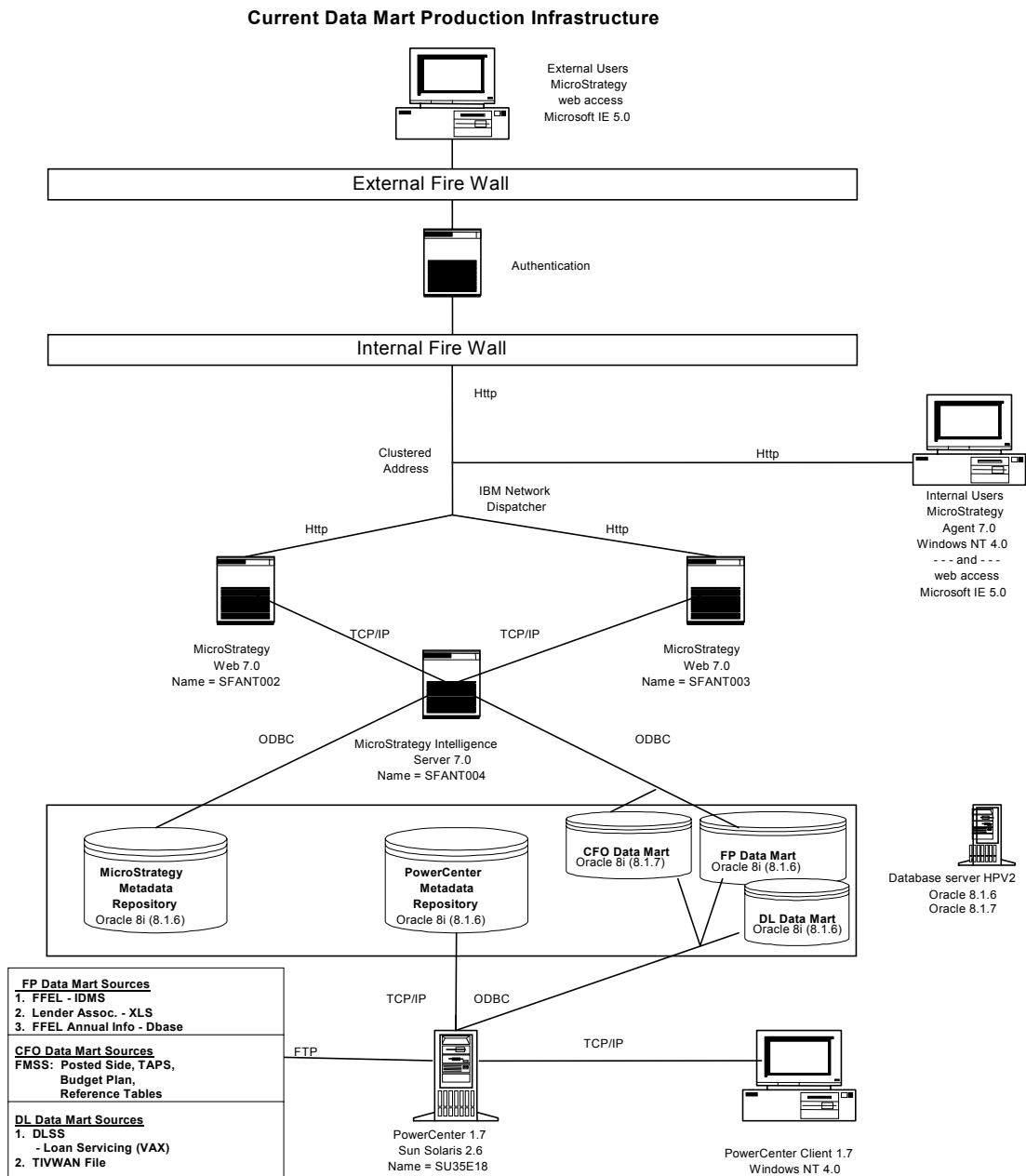
For specific technical information, please refer to the DL Data Mart design documents. Below is the DL logical data model:



*Delinquent Loans Data Mart Logical Model*

## Data Mart Architecture Overview

These existing data marts (CFO, FP, DL) use the same enterprise infrastructure in production, including Informatica for data acquisition, Oracle for database, and Microstrategy for analytic reporting. The following diagram presents a snapshot view of the infrastructure for these data marts:



## ***Key Contacts***

For more information on the content discussed in this deliverable, please contact the appropriate subject matter experts below:

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